VDOT

Martinsville Southern Connector Study
Route 220 Environmental Impact Statement

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Phase IA Archaeological Assessment

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PHASE IA ARCHAEOLOGICAL ASSESSMENT MARTINSVILLE SOUTHERN CONNECTOR STUDY HENRY COUNTY, VIRGINIA

PREPARED FOR:
VIRGINIA DEPARTMENT OF TRANSPORTATION
SALEM DISTRICT
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ABSTRACT

AECOM completed a Phase Ia archaeological assessment under contract to the Virginia Department of Transportation (VDOT) in support of an Environmental Impact Statement (EIS) that evaluates potential transportation improvements along the US Route 220 corridor between the US Route 58/220 Bypass south of Martinsville and the North Carolina state line in Henry County, Virginia. The Phase Ia was conducted for build alternatives A through C under consideration in the EIS. The alternatives range between 7.3 and 7.7 miles (11.7 and 12.4 kilometers) long and include a 400-foot (122-meter) wide corridor that expands as necessary to accommodate new and/or improved interchanges. The corridor boundaries, as depicted on a series of design drawings provided by VDOT, are coterminous with the Phase Ia archaeological Area of Potential Effects (APE) and encompass 1,068.4 acres (ac).

This study was initiated to assist VDOT in meeting regulatory obligations under Section 106 of the National Historic Preservation Act of 1966, as amended. The goals of this study were to summarize relevant prehistoric and historic contexts, review previously recorded cultural resources site and survey data, analyze historic mapping/aerial imagery, and assess the presence of and potential for archeological resources within each of the corridor alternatives. This information will help VDOT determine the potential impacts to known or suspected archaeological resources within or immediately adjacent to each build alternative in advance of ground disturbing activities.

The archaeological potential ranges from low to high throughout the APE. Areas of low potential account for 226.8 ac (21 percent) of the APE and generally correspond to areas of prior disturbance and steep terrain. Areas of moderate potential account for 331.4 ac (31 percent) of the APE, inclusive of low-relief terrain between 656 and 1,640 ft (200 and 500 m) from water and/or those areas suitable for, but lacking direct evidence of, historic agrarian settlement. Lastly, areas of high potential account for 510.2 ac (48 percent) of the APE and correspond to low-relief areas within fewer than 656 ft (200 m) of a reliable water source and/or areas known to have contained historic occupations/cemeteries likely to include archaeological deposits. Alternative A contains 268.4 ac of high, 144.8 ac of moderate, and 159.6 ac of low archaeological potential; Alternative B contains 274.2 ac of high, 178.1 ac of moderate, and 108.6 ac of low archaeological potential; and Alternative C contains 163.4 ac of high, 89.6 ac of moderate, and 101.6 ac of low archaeological potential. Note that the collective alternative acreage (1,488.3) is greater than the APE acreage (1,068.4) due to 419.9 ac of overlap among the alternatives. While all three (3) build alternatives have the same relative proportions of high, moderate and low potential areas (see Table 6-1), Alternative C impacts significantly less acreage of high and moderate potential areas due to the fact that it impacts less acreage overall (359.6 acres) than Alternatives A (572.8 acres) and B (560.9 acres).

The kinds of archaeological resources expected within the APE include prehistoric short- and long-term habitations, historic scatters, historic cemeteries, and historic domestic/agricultural sites (farmsteads). Each resource type is expected to be present within any one of the build alternatives. Potentially significant site types include intact prehistoric temporary/base camps and villages most likely to be present along low-relief landforms adjacent to significant waterbodies, as well as sites associated with historically mapped or extant historic farmsteads. It is not anticipated that site types worthy of preservation in place will be present within any of the three (3) build alternatives, rather site types likely to be present that are potentially significant

will be so for their information potential and, thus, exempt from further consideration under Section 4(f) of the U.S. Dept. of Transportation Act of 1966.

AECOM recommends Phase I archaeological survey in areas of moderate to high archaeological potential to determine the presence, nature, and extent of potentially significant, intact archaeological resources, if any, within the APE. No further work is recommended for any areas considered to have low archaeological potential.

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1.0 INTRODUCTION

The Virginia Department of Transportation (VDOT) contracted AECOM to conduct a Phase Ia archeological assessment in support of an Environmental Impact Statement (EIS) associated with proposed transportation improvements along the US Route 220 corridor between the US Route 58/220 Bypass south of Martinsville and the North Carolina state line in Henry County, Virginia (Appendix B, Figure 1-1). The EIS considers three possible build alternatives, A through C, which range between 7.3 and 7.7 miles (11.7 and 12.4 kilometers) long and include 400-foot (ft) (122-meter [m]) wide corridors that expand as necessary to accommodate new and/or improved interchanges. The corridor boundaries, as depicted on a series of design drawings provided by VDOT, are coterminous with the Phase Ia archaeological Area of Potential Effects (APE) and encompass 1,068.4 acres (ac) (Appendix B, Figure 1-2).

This study was initiated to assist VDOT in meeting regulatory obligations under Section 106 of the *National Historic Preservation Ac*t of 1966, as amended (NHPA). AECOM reviewed environmental data, cultural resources studies and site files, and readily available historic documentation to assess the potential for each build alternative to contain archaeological resources according to regional predictive models. Additionally, a windshield survey was undertaken to characterize local environmental conditions. In particular, the potential for significant archaeological sites was carefully reviewed, including those resources that may have compelling associated values other than their potential to yield information significant to prehistory and history. This information will help VDOT determine the potential impacts to known or suspected archaeological resources within or immediately adjacent to each build alternative in advance of ground disturbing activities.

Work was conducted in accordance with Section 106 of the NHPA, the Archaeological Resources Protection Act (United States Department of the Interior [USDI] 1979), and the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800; USDI 2004). The study also conformed to the Virginia Department of Historic Resources' (DHR) *Guidelines for Conducting Historic Resources Survey in Virginia* (DHR 2011), the Virginia Department of Transportation's *Expectations and Standard Products for Cultural Resource Surveys* (VDOT 2016), and the *Programmatic Agreement between the Virginia Departments of Transportation and Historic Resources Concerning Interagency Project Coordination* (VDOT and DHR 1999).

Documentary research was conducted in May and June 2019. Heather Crowl served as the Principal Investigator, Pete Regan served as researcher and author, and Kathy Furgerson served as the GIS specialist. Following this Introduction, the report includes six sections of text: Project Location and Description; Cultural Context; Previous Investigations; Research Design; Analysis and Recommendations; and References Cited. Two appendices follow: Appendix A contains the Qualifications of Investigators, and Appendix B contains the Report Figures.

2.0 PROJECT LOCATION AND DESCRIPTION

2.1 GEOLOGY AND TOPOGRAPHY

The project area is located within the Piedmont physiographic province, which is characterized by rolling slopes, thick soils, and deeply weathered bedrock (Roberts and Baily 2000). Monadnocks, remnant highlands of resistant rock, rise above the rolling terrain, particularly in the western portion of the province (Geology of Virginia [GV] 2019). Elevations within the project area range between 725 and 975 ft (221 and 297 m) above mean sea level (Roberts and Baily 2000). The Piedmont province extends from the Fall Line, a region of sharp geological relief where watercourses cascade off of the higher Piedmont to the lower Coastal Plain elevations, west to the foot of the Blue Ridge Range (Roberts and Baily 2000).

Piedmont geology is highly complex and consists of igneous and metamorphic rocks that are the remains of island chains that had accreted onto the North American mainland during the Appalachian Mountain building during the Ordovician and Silurian periods of the Paleozoic Era (485-412 million years ago, GV 2019). Older rocks that formed during the opening of the rift that created the Atlantic Ocean also form Piedmont bedrock layers (GV 2019).

The topography within the APE generally consists of rolling hills with areas of lower relief occurring near hill and knoll summits and in bottomlands/floodplains along the numerous drainages that traverse the APE (Appendix B, Figure 2-1). Slopes vary from 0 to 2 percent along floodplains to as much as 45 percent along the more dramatic hillsides, with slopes in excess of 15 percent common in many areas.

2.2 HYDROLOGY

Several minor drainages are present within the APE, the most significant of which is Marrowbone Creek, a tributary of the nearby Smith River located approximately 1.75 miles to the east of the APE (Appendix B, Figure 2-1). Smith River originates in southern Virginia's Blue Ridge Mountains and flows 80 miles southeast to join the Dan River in North Carolina (United States Environmental Protection Agency 1970).

2.3 PROJECT AREA SOILS

The United States Department of Agriculture's Natural Resources Conservation Service (USDA NRCS 2019a) has mapped several soil units within the APE (Appendix B, Figure 2-2). These include the Clifford sandy loam series (map symbols 4B through 4E), Codorus loam (map symbol 5A), Colvard fine sandy loam (map symbol 6A), Minnieville loam (map symbols 14B through 14D), Orenda sandy loam (map symbol 16B), the Orenda-Spriggs complex (map symbols 17C through 17E), Udorthents and Urban land (map symbols 19 and 20), and the Woolwine-Clifford complex (map symbols 21C through 21E). Basic properties of the natural soils mapped within the APE are presented in Tables 2-1 through 2-8 (USDA NRCS 2019b). Udorthents and Urban land soils are not included as they represent disturbed soil horizons and therefore lack predictable origins, drainage capacities, and structural properties. These soils can exhibit a high degree of taxonomic variability and may be redeposited from local material or entirely exogenous. Because disturbed soil structure and formation cannot be predicted, it is not possible to define the structure of a typical soil column, though it is expected that non-native urban soils will present as mottled, compacted horizons possibly containing modern debris, cobbles, and gravel superposed above natural strata.

Table 2-1. Natural Soils within the APE

Soil	Drainage	Landform	Parent Material
Clifford	Well-Drained	Summits and Side Slopes	Felsic Crystalline Rock
Codorus	Moderately to Somewhat Poorly Drained	Floodplains	Micaceous Alluvium
Colvard	Well-Drained	Floodplains	Loamy/Sandy Sediments
Minnieville	Well-Drained	Ridges and Side Slopes	Volcanogenic Residuum
Orenda	Well-Drained	Ridges and Side Slopes	Volcanogenic Residuum
Spriggs	Well-Drained	Summits and Side Slopes	Mafic Rock Residuum
Woolwine	Well-Drained	Summits and Side Slopes	Felsic or Crystalline Rock Residuum

Table 2-2. Clifford Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Ap	0-5	Dark Brown (7.5YR 3/3)	Fine Sandy Loam
BA	5-13	Yellowish Red (5YR 4/6)	Loam
Bt1	13-17	Red (2.5YR 4/6 to 4/8)	Clay Loam
Bt2	17-48	Red (2.5YR 4/8)	Clay
BC	48-58	Red (10R 4/6)	Clay Loam
C	58-72	Red (2.5YR 5/8) and Reddish Yellow (5YR 6/6)	Loam Saprolite

Table 2-3. Codorus Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Ap	0-9	Brown (10YR 4/3)	Silt Loam
Bw1	9-18	Dark Yellowish Brown (10YR 4/4)	Silt Loam
Bw2	18-30	Brown (10YR 5/3)	Loam
C1	30-54	Light Yellowish Brown (10YR 6/4)	Loam
C2	54-65	Light Yellowish Brown (10YR 6/4)	Loam

Table 2-4. Colvard Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Ap	0-10	Brown (10YR 4/3)	Fine Sandy Loam
C1	10-26	Brown (7.5YR 4/4)	Fine Sandy Loam
C2	26-42	Yellowish Brown (10YR 5/6)	Fine Sandy Loam
C3	42-47	Yellowish Brown (10YR 5/4)	Loamy Sand
C4	47-60	Brown (10YR 5/3)	Cobbly Sand

Table 2-5. Minnieville Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Ap	0-8	Dark Brown (7.5YR 4/4)	Clay Loam
Bt1	8-29	Red (2.5YR 4/6)	Clay

Horizon	Depth (in)	Color	Texture
Bt2	29-48	Red (2.5YR 4/6)	Clay
C1	48-58	Red (2.5YR 5/8)	Clay Loam
C2	58-85	Shades of Red, Yellow, Olive, and White	Silty Clay Loam

Table 2-6. Orenda Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Oi	0-1	N/A	Decomposing Organics
Ap	1-9	Brown (7.5YR 4/4)	Loam
Bt1	9-32	Strong Brown (7.5YR 5/6)	Clay
Bt2	32-41	Yellowish Red (5YR 5/6)	Clay Loam
C1	41-47	Yellowish Red (5YR 5/6)	Sandy Clay Loam
C2	47-67	Strong Brown (7.5YR 5/8)	Sandy Loam
Cr	67	N/A	Weathered Rock

Table 2-7. Spriggs Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
A	0-2	Brown (10YR 4/3)	Silt Loam
E	2-8	Yellowish Brown (10YR 5/6)	Silt Loam
Bt	8-18	Strong Brown (7.5YR 5/8)	Clay Loam
C	18-32	Yellowish Red (5YR 5/8)	Gravelly Loam
Cr	32-48	N/A	Weathered Rock
R	48	N/A	Bedrock

Table 2-8. Woolwine Soils Typical Pedon

Horizon	Depth (in)	Color	Texture
Ap	0-8	Strong Brown (7.5YR 5/6)	Gravelly Sandy Loam
BA	8-12	Yellowish Red (5YR 5/8)	Sandy Clay Loam
Bt	12-25	Yellowish Red (5YR 5/8)	Clay
BC	25-31	Red (2.5YR 4/8)	Very Gravelly Sandy Clay Loam
Cr	31-60	N/A	Soft Sillimanite Schist

2.4 CURRENT CONDITIONS AND LAND USE

The project area largely consists of forests and agricultural areas in the vicinity of low-density residential and commercial developments. Few areas of significant ground disturbance are evident, and are generally limited to road, railway, and utility corridors, as well as residential/commercial buildings. Additional ground disturbances that may have impacted large portions of the APE include historic/modern plowing, logging, and/or silviculture activities.

3.0 CULTURAL CONTEXT

The DHR has developed historic contexts that provide a framework for the description and analysis of known or expected cultural resources and the basis for evaluating the significance of those resources. Recognized contexts are organized by geographic region, time/developmental period, and theme and area the basis for evaluating the significance of resources within the project area.

3.1 PREHISTORIC CONTEXT

The prehistory of the Middle Atlantic region is traditionally divided into the Paleoindian (10,000–8,000 B.C.), Archaic (8,000–1,200 B.C.), and Woodland (1,200 B.C.–A.D. 1606) periods. The Archaic and Woodland periods are further subdivided into Early, Middle, and Late periods. These periods are defined by changes in subsistence strategies, settlement patterns, and material culture, such as projectile point styles, and the introduction and development of ceramics and agriculture.

3.1.1 Paleoindian Period (10,000–8,000 B.C.)

The end of the Pleistocene epoch (ca. 12,000–10,000 years ago) represents the terminus of the Ice Age or at least the beginning of a long interglacial episode. The environment during this time was quite different from modern conditions. Moisture that was locked up in the glacial ice sheets resulted in lower sea levels, and more exposure of land area along coastal areas. Areas that were exposed during this time were subsequently inundated by the global rise in sea level that began at the end of Pleistocene when climatic amelioration resulted in melting continental ice sheets. During this period of post-glacial warming, the climate was still cooler than present and forest communities were dominated by coniferous trees.

While the dates for the Paleoindian period are continuously debated, it is generally accepted that human populations had become established in spatially discrete areas of North America by 10,000 B.C. These occupations are generally attributed to the Clovis culture with its signature fluted points, but it should be noted that traces of earlier habitations are present at a number of regional sites. The Cactus Hill site in southern Virginia (McAvoy and McAvoy 1997), the Meadowcroft Rockshelter site in southwestern Pennsylvania (Adovasio et al. 1998), and the Barton site in western Maryland have all yielded carbon-dates pre-dating Clovis occupation, although no clear diagnostic artifacts have been identified in the earliest deposits at these sites. Although there is much to be learned about the pre-Clovis toolkit, micro-blade technology appears to be a defining characteristic.

Paleoindian sites are defined by the presence of diagnostic lithic tools. The Paleoindian toolkit typically consists of diagnostic lanceolate projectile points, formal scrapers, gravers, denticulates, *pieces esquillées*, wedges, perforators, unifacial and bifacial knives, and burins (Dent 1995). Limaces are also thought to be diagnostic of this time (e.g., Vail Site, Gramly 1982). Diagnostic projectile points consist of fluted and unfluted forms and include Clovis, Crowfield, Cumberland/Barnes, Hardaway-Dalton, and Hardaway Side-Notched types (Dent 1995; Justice 1995). Preferred lithic materials for these projectile points were high-quality cryptocrystalline rock such as jasper and chert (Dent 1995; McCary 1984), though tools made from locally available quartz and quartzite cobbles have been documented at sites in the nearby Middle Atlantic region (e.g., Ebright 1992; McAvoy and McAvoy 1997).

The traditional view of Paleoindian settlement and subsistence in Virginia is that inhabitants were idealized foragers, with small bands moving through the landscape hunting, fishing, and foraging for other materials and food stuffs (Binford 1980). Smaller bands may have come together to form larger groups during certain times of the year at valuable resource sites such as lithic outcrops (Dent 1995).

While Turner's (1989) distribution of Paleoindian sites and isolated finds clearly showed a preferential concentration along the Piedmont and Coastal Plain south of the James River, there is sparse evidence for Paleoindian occupations within Henry County. It has been reported that a fluted point was recovered at an unknown location in the vicinity of the county's boarder with North Carolina, providing at least some evidence for Paleoindian activities (Humphries et al. 2010). DHR records indicate that five archaeological sites within Henry County are reported to have probable or possible Paleoindian components. Still, evidence for Paleoindian occupations within the county remain rare and there is a relatively low potential for encountering associated archaeological deposits within the APE.

3.1.2 Archaic Period (8,000–1,200 B.C.)

The Paleoindian period gave way to the Archaic period as the cool climates of the last Ice Age shifted closer to those of present-day Virginia. The vegetation that characterized the region at the end of the Ice Age shifted from the predominantly coniferous forests to mixed deciduous and coniferous forests of today. The Archaic period is conventionally divided into the Early (8,000–6,500 B.C.), Middle (6,500–3,000 B.C.), and Late (3,000–1,200 B.C.) periods to reflect changing lithic technologies and subsistence strategies across this long expanse of time. The Archaic period as a whole is defined by a series of adaptations that include increased sedentism and a shift in settlement focus to larger rivers and major tributaries.

3.1.2.1 Early Archaic Period (8,000–6,500 B.C.)

During the Early Archaic period, the climatic warming trend that began during the Paleoindian period continued, as did the shift from coniferous to deciduous forests. As a result, a broader range of food resources became available. Kirk and Palmer projectile points are typical of the Early Archaic period. Bifurcate-based points such as LeCroy, St. Albans, and MacCorkle are also found in Virginia sites from the latter portion of this time period and into the early Middle Archaic (Dent 1995). Quartz, especially high-quality quartz, was widely used at this time.

While archaeological resources of this period are expected to be more common than those of the Paleoindian period, fewer than a dozen Early Archaic sites/site components in Henry County have been registered with DHR. Nevertheless, there is a moderate potential for encountering such deposits within the APE. Limited historic and modern developments in this portion of Henry County may have led to the preservation of stable landforms that would have been suitable for Early Archaic occupations. Such landforms are expected to exhibit well-drained soils with relatively level topography and ready access to reliable fresh water sources. Terraces above perennial streams and higher order waterbodies that have not been subjected to extensive erosion or historic/modern impacts have a moderate probability of containing Early Archaic deposits.

3.1.2.2 Middle Archaic Period (6,500–3,000 B.C.)

The Middle Archaic period is characterized by the production of increasingly specialized bone and lithic tools. Ground stone tools, such as those used in plant processing, appeared for the first time during this period. Projectile points common to this period include Stanly, Morrow

Mountain, and Guildford types, though earlier bifurcate points remained in use and side-notched points appeared toward the end of the period (Ferland 2008).

In addition, transitory camps expanded into poorly-drained areas of the floodplain, interior tributaries, and upland locations. Middle Archaic occupations tend to favor any suitable landform with easy fresh water access and/or other resource procurement sites (e.g., quarries), and sites may occur on sufficiently stable floodplains, terraces, valleys, and bluffs. Base camps are more commonly identified on floodplains in lower elevations and in the vicinity of larger stream valleys in higher uplands. Short-term encampments represent the most abundant site types given their widely dispersed nature across a greater variety of landforms and may occur in virtually any area proximal to a water source and exhibiting low-relief (Humphries et al. 2010).

Significantly greater numbers of Middle Archaic sites throughout Virginia, including the Piedmont, attest to an increase in population and a broader based resource procurement strategy (Klein and Klatka 1991). Within Henry County, 28 sites have been registered with DHR that either date exclusively to the Middle Archaic or exhibit a Middle Archaic component. While no such sites have been reported within or immediately adjacent to the APE, the general trend of Middle Archaic population increase and the broader utilization of a wider variety of landforms suggests a moderate potential for encountering associated archaeological resources on stable, well-watered landforms within the APE.

3.1.2.3 Late Archaic Period (3,000–1,200 B.C.)

Numerous Late Archaic period archaeological sites have been identified throughout the region. Larger sites dating to the Late Archaic appear to reflect a continuation of the settlement pattern that emerged during the Middle Archaic, i.e., a preference for utilizing locations along streams in floodplains. Smaller foray sites were common on ridge tops and near freshwater springs. Prehistoric family groups began to join together to form bands as part of an overall adaptive strategy. Seasonal movements were aimed at collecting a variety of food resources indicating more refined and complex subsistence patterns. The transition between the Late Archaic and Early Woodland culture periods occurred due to a shift in settlement patterns in favor of riverine areas. Groups of this period were "highly mobile" and increased the trade network for specialized resources (Kinsey 1972). Witthoft (1953) noted that during this time groups relied heavily on fishing for subsistence, particularly in locales where there were seasonal anadromous fish runs.

In Virginia, lithic materials such as rhyolite were preferred for use in the manufacture of tools during this period (Gardner and Snyder 1994). Archaeological evidence suggests advances in technology during the Terminal Archaic period, including the introduction of food preparation and storage vessels. Steatite (i.e., soapstone) vessels were a precursor to ceramic vessels that appeared during the Early Woodland period in the Mid-Atlantic and indicate a trend toward increased sedentism.

In the Coastal Plain and Piedmont areas of Virginia, many sites from this period contain artifacts typical of the Savannah River Complex. Broadspears and steatite bowls are diagnostic of Susquehanna and Savannah River complexes, both Late Archaic traditions in Virginia. Sites with elements of the Savannah River Complex range from small, temporary campsites to larger, seasonal camps including hearth features and stone platforms.

Preferred lithic materials used for tool production changed during the transition between the Late Archaic and Early Woodland periods. Quartzite was used in cobble form in order to produce large flakes and cutting tools. Broadspears were not only larger than typical projectiles of the earlier Archaic periods, but they were manufactured from a greater variety of lithic materials, including quartzite, rhyolite, quartz, and ferruginous sandstone (Barber 1991; Hantman 1990). Variants of the Savannah River projectile type have been identified based on blade-width and stem type. Koens-Crispin points also date to this time frame and exhibit similarities to the Savannah River type. Perkiomen broadspear points are typical of the period and are found on the Virginia Coastal Plain and the Piedmont.

Seventeen Late Archaic sites/site components in Henry County have been registered with DHR. It is unclear why fewer Late Archaic sites are evident, particularly in light of increasing population trends that otherwise bridge the Archaic and Woodland periods.

3.1.3 Woodland Period (1,200 B.C.–A.D. 1606)

The change from the Archaic to Woodland period is marked by the introduction of ceramics, which is accompanied with population growth and an increasingly sedentary way of life. Woodland sites, and those of the transition from Archaic to Woodland, are typically found right along a stream course, and often on terraces containing hydrophytic trees such as beech and sycamores (Mouer 1991). The Woodland period is generally divided into the Early (1,200 B.C. – 300 A.D.), Middle (300–1000 A.D.), and Late Woodland (1000–1606 A.D.) based on changes in ceramic types, lithic technologies, subsistence patterns, and social development.

3.1.3.4 Early Woodland Period (1,200 B.C. –300 A.D.)

During the Early Woodland period, many Piedmont Plateau sites were located along large streams and on floodplains (Klein and Klatka 1991). Researchers suggest that local settlement preference was based on the short-term adjustments to different habitats after the climatic change during the mid-Holocene period (Klein and Klatka 1991). This climatic change produced more stable and warmer conditions than during the previous periods of human occupation. Oak-Hickory-Tulip Poplar forests were common. Rivers such as the Rappahannock had expanded to their present-day channels, and the Chesapeake Bay was fully formed.

One indicator of increased sedentism around 1,000 B.C. is the production of fired clay pottery. Archaeological evidence at sites in Virginia shows that Early Woodland groups were just beginning to make the transition from hunting and gathering to horticulture. In the Mid-Atlantic region, several varieties of cultigens have been identified on archaeological sites (Adovasio and Johnson 1981). Fish and shellfish became an important part of the diet. Advances in subsistence strategy and technology are illustrated by new site attributes such as storage pits and ceramic containers. The change in pottery technology can be observed in the transition from steatite-tempered pottery (such as Marcey Creek) to ceramics with sand and crushed rock temper; these ceramics sometimes exhibit cord or net-impressed exteriors. Accokeek ceramics, tempered with sand and crushed quartz, appeared about 750 B.C. They are typical of the Early Woodland period.

Early Woodland habitation sites in this region are typically found in the vicinity of higher order streams (Klein and Klatka 1991). Within the APE, Marrowbone Creek represents the highest order stream and thus the most likely to exhibit more intensive Early Woodland occupations. However, resource procurement camps and other short-term occupations may occur in the

vicinity of lower order waterbodies, of which there are many transecting the APE. Given the relatively large size of the APE and its containing potentially stable landforms well suited to the observed patterns of Early Woodland site distributions, there is a moderate potential for encountering such sites within the APE. Within Henry County, 31 sites have been registered with DHR as containing Early Woodland components.

3.1.3.5 Middle Woodland Period (A.D. 300–1000)

The distribution of sites in Virginia suggests that the Native American population increased during the Middle Woodland period. There is some evidence for increased reliance on horticulture for subsistence. Several models have been developed for discussing the social organization of Middle Woodland groups. These models focus on the functions of the base camp during this period. Binford describes the base camp as the hub of foray and procurement activities for populations that are still predominantly hunter-gatherers (1964). Blanton indicates a more advanced level of inter-tribal social organization than is suggested by Binford. He introduces the "macro-band-base-camp", which was a camp where groups from adjoining territories congregated (Blanton 1992:72).

Changes in pottery style mark this period, specifically the addition of net impressed surface treatment, which appear later in this area than elsewhere. Sand- and grit-tempered ceramics, such as Stony Creek, Vincent, and Clements-like varieties occur within the region. In addition to net impressions, plain and cord marked surface treatments are also evident in the archaeological record. Common projectile points include Fox Creek, Rossville, Potts, Badin, and Yadkin types (Brann and Laird 2017).

Hunting and gathering subsistence strategies remained common, and while habitation sites appear to have been occupied for relatively longer periods of time, fully sedentary populations do not appear to have emerged by this time. Several Middle Woodland sites exhibit middens and evidence for houses, and villages coalesced within the Dan River draining in Henry County. Short-term occupations of the period are also evident in the archaeological record, occupying floodplains, terraces, and ridges (Ferland et al. 2008). Within Henry County, 32 Middle Woodland sites/site components have been registered with DHR, including scatters, villages/towns/hamlets, and temporary camps.

3.1.3.6 Late Woodland Period (A.D. 1000–1606)

Increased sedentism occurred during the Late Woodland period. This led to an increase in the number and variety of features from archaeological sites of this period. This includes postholes from longhouses or circular house structures, storage pits, basins, hearths, and burials.

Developments in socio-political complexity led to the establishment of chiefdoms in Virginia, most notably the Powhatan chiefdom. These groups are often called the Algonquian tribes of the Chesapeake (Potter 1993, 1989). Major villages that housed tribal chiefs, called werowances (Potter 1993) were located on large estuaries of major rivers, such as the Rappahannock River. In the Virginia Piedmont, villages were located near good fishing spots and on lands where soils were suitable for agriculture. In the Piedmont, groups relied on slash and burn agriculture and the cultivation of corn for survival (Potter 1993). Other site types include quarries, workshops, seasonal and temporary or transient base camps, hamlets and villages. European explorers such as John Smith encountered these chiefdoms, and historic records provide extensive details of their socio-political organization at the time of contact.

Projectile points representing the Late Woodland period are primarily Levanna, Clarksville, and Madison types. They were very often manufactured using local quartz, and their small triangular shape indicates a preference for bow and arrow over spears. Common ceramic types in the region include the Dan River series. Many Late Woodland ceramic vessels were cord-marked, impressed, or incised (Egloff and Potter 1982).

With increasing sedentism, the development of permanent habitation sites and a network of support camps became increasingly common. Corporate settlement commonly occurred on terraces/bluffs and floodplains surrounding larger waterbodies, while smaller interior streams, valleys, and terraces continued to support the surrounding short-term camps (Humphries et al. 2010). Large villages within the Dan River drainage became apparent by the Late Woodland period, with two from Henry County are demonstrative of the level of site complexity and occupational intensity. Site 44HR0003 represents a large, palisaded village replete with 200 features (e.g., storage pits, hearths) and 88 burials. This important occupation was located on the Smith River near Martinsville and thus within very close proximity of the APE. Site 44HR0006 also represents a palisaded Smith River village inclusive of over 200 features and 11 burials. The wide diversity of sites and settings, together with increased population numbers, are reflected in the quantity and variety of Late Woodland sites reported for Henry County. According to DHR's records, 56 sites/site components dating to this period have been registered in the county.

3.2 HISTORIC CONTEXT

DHR (2011) has developed eight historic periods that form the basis for the development of historic contexts. These periods and themes reveal the patterns of historic development both at the local and state levels and aid in the identification and evaluation of archaeological resources. The Settlement to Society period (A.D. 1607–1750), the Colony to Nation period (A.D. 1751–1789), the Early National period (A.D. 1790–1829), the Antebellum period (A.D. 1830–1860), the Civil War (A.D. 1861–1865), the Reconstruction and Growth period (A.D. 1866–1916), The World War I to World War II period (A.D. 1917–1945), and the New Dominion period (A.D. 1946–Present). For the purposes of this discussion, some periods have been combined.

3.2.1 Settlement to Society (A.D. 1607–1750)

In 1607, the first permanent English colony was established at Jamestown, Virginia, and European exploration and settlement of the Chesapeake area continued from that time onward. Captain John Smith's explorations of the Chesapeake Bay area during the years 1608 to 1610 marked the first documented contact between European explorers and Native Americans in the region. Captain Smith's journal describes his travels and maps Indian village sites along the extensive estuaries of the Potomac River. Captain Smith noted six tribes living on the northern side of the Potomac River, with the largest population of Native Americans found at the community of Moyaone (Clark 1980; Toogood 1969). By the 1650s, European settlers were taking an aggressive role in claiming lands and driving out Native Americans. Disease and warfare virtually exterminated the chiefdoms of Maryland and Virginia, and those that survived were eventually forced out of their homelands or lived among the Europeans.

During the seventeenth and early eighteenth centuries, European activities within the vicinity of what is now Henry County were sparse and typically exploratory in nature; significant settlements within the modern county boundaries did not occur until the mid-eighteenth century. Late seventeenth century expeditions into the unknown lands west of the Virginia fall line and mountains beyond likely led the first Europeans through Henry County, though there is no

evidence that any permanent settlement directly resulted from these early forays. In 1671, Thomas Batts, Thomas Wood, and Robert Fallam likely passed through the area to explore the Blue Ridge Mountains, and thus may have been the first Europeans to visit what is now Henry County (O'Neal 2004).

In 1728, William Byrd surveyed part of the Virginia/North Carolina border, pushing about halfway into Henry County before stopping at Peter's Creek. The border was lengthened 90 miles to Steep Rock Creek by 1749, and all the way to Bristol, Tennessee by 1779 (Byrd 1929). When Byrd first arrived in what is now Henry County, he noted that the Tutelo, Saponi, and Saura Native Americans who were formerly living in the area were absent, and European colonization was underway. The Carolina Wagon Road was instrumental in funneling settlers into the region during the 1740s, while others pushed westward from the more well-established habitations along the Chesapeake Bay and Virginia's tidal rivers (Humphries et al. 2010). By this time, what would become Henry County was part of Brunswick County before falling under the jurisdiction of Lunenburg County by 1746. The county designations continued to change over the next three decades as it was variously part of Halifax (1752) and Pittsylvania (1767) counties before assuming its current boundaries and designation as Henry County in 1776 (Hill 1925).

Early eighteenth century residents of what is now Henry County and the surrounding area were heavily engaged in the same agricultural practices that underpinned so much of contemporary Virginia's economy. While corn and wheat were under cultivation, tobacco was a primary focus for local farmer, reproducing the economic trends brought with them from the Tidewater region and adjacent inland areas (Maroney and Barile 2007).

Early settlement in Henry County may have followed a general trend in which homes were sited near springs to maintain a steady freshwater supply. "The springs were usually located at the foot of a hill or cliff, with the house situated above, anywhere from 200-500 yards away" (McLearen and Boyd 1988:10). Typical dwellings of the period were likely single- or double-room cabins exhibiting stone or daub chimneys and subfloor pits or root cellars for storage (McLearen and Boyd 1988).

3.2.2 Colony to Nation (A.D. 1750–1789)

In the final decades leading to the independence of the American colonies, those on Virginia's western frontier were dangerously exposed to attacks, particularly during the French and Indian War (1754–1763). While this is generally true of Virginia's frontier writ large, it does not appear as though settlers within the vicinity of the APE suffered assaults by the French or their Native American allies. Two forts were constructed near what is now Martinsville in 1756 to defend against any potential attacks, including Fort Mayo to the southwest and Fort Trial to the northwest (Levinthal et al. 2009; Maroney and Barile 2007).

During and after the French and Indian War, residents of what is now Henry County were largely engaged in a continuation of the agricultural practices imported from the regions of Virginia to the east. The quality of local soils encouraged tobacco monoculture, and the importation of an enslaved labor force (Humphries et al. 2010).

The American Revolutionary War (1775–1783), though a polarizing force among Henry County residents, brought no military action to the county (Humphries et al. 2010). It was during this time, however, that 382 square miles of Pittsylvania County was designated Henry County in honor of American patriot Patrick Henry. Naming the county after an American Revolutionary

War hero while the conflict was in progress clearly shows the support for independence on behalf of those who created and named the county. A more meaningful depiction of where the county residents' political loyalties were placed is evident from contemporary oaths of loyalty. At a 1777 session of the local court, 630 residents swore their loyalty to the United States, with only 40 refusing the oath (Maroney and Barile 2007).

3.2.3 Early National and Antebellum Periods (A.D. 1789–1860)

Henry County's population increased in the wake of the American Revolutionary War, rising from 5,259 residents in 1800 to 7,335 by 1804. A stable and successful agricultural economy helped underpin the county's successful development, and this in turn was driven by the prosperity of local tobacco production (Humphries et al. 2010). Not only did this rise in population occur among its free residents, but its enslaved population increased as well (Holm et al. 2003). The rise in enslaved laborers is inextricably tied to the popularity of tobacco farming in Henry County. Earlier traditions of tobacco monoculture remained relatively uninterrupted in Henry County during the late eighteenth and early nineteenth centuries. Plug tobacco was in production by 1792 in Henry County, and within a generation Henry County's plug tobacco was internationally recognized (Holm et al. 2003). Farmers adopted a different variety of tobacco around 1839, and by 1860 the county boasted 31 tobacco factories alongside a number of mills, leather producers, and other industries (Holm et al. 2003; O'Neal 2004). The town of Ridgeway, located southeast of Martinsville, served as the county's economic center during this period (Holm et al. 2003)

In addition to local soils well suited to desirable tobacco varieties and an enslaved labor force, Henry County's agricultural success was equally dependent upon a reliable transportation system. Situated as it was in the commonwealth's hinterlands, far from the bustling eastern markets, Henry County required efficient transportation routes to maintain its economic health. After all, farmers' prosperity depended as much upon productive fields as it did on market access.

To facilitate the transfer of goods and people from western Virginia to more populous areas, a transportation system known as the Roanoke Navigation was developed. Poorly developed overland routes meant that many regional planters looked to the Dan, Roanoke, and Staunton rivers as economic highways. Calls for navigational improvements came as early as the 1790s, though the Roanoke Navigation Company was not chartered until 1812 (Humphries et al. 2010). Though North Carolina's state legislature chartered the company, it was recognized that Virginia's cooperation would be necessary to bring proposed riverine improvements to the Roanoke River and its major Virginia tributaries. Eventually, the Virginia General Assembly was convinced and soon a series of canals, locks, and basins ushered in a new era of prosperity for many inland farmers. Improvements to the river system reached Leaksville, North Carolina in 1828, a short distance southeast of the APE, making the Dan River and all downstream rivers navigable to the coast (Joyner and Moore 2006).

The Roanoke Navigation remained successful for several years but, like so many canal companies of the early nineteenth century, it gradually lost revenues as railroads became increasingly well-developed in the second quarter of the nineteenth century. In 1855, the Roanoke Navigation Company gave its final report, quickly falling into disrepair and closing to the traffic which bustled at its locks only a few decades before (Joyner and Moore 2006).

3.2.4 The Civil War (A.D. 1861–1865)

Henry County did not experience any major military engagements during the Civil War, largely owing to its great distance from the main theaters of war. Toward the end of the conflict in April 1865, Union soldiers under General George Stoneman passed through Henry County to join the forces of General William Tecumseh Sherman in North Carolina for his final campaign against Confederate General Joseph Johnson. At the time, Martinsville was under the guard of small contingent of 200 Confederate troops, part of General Joe Wheeler's cavalry. The Confederate forces retreated when Union Colonel William J. Palmer's 10th Michigan Cavalry entered Martinsville. This is the only Civil War engagement known to have occurred within Henry County (Humphries et al. 2010; O'Neal 2004).

3.2.5 Reconstruction and Growth (A.D. 1865–1914)

Henry Count was fortunate among its southern counterparts in that it did not face the levels of devastation witnessed in so many other Confederate counties. Nevertheless, the county's residents were still subjected to the post-Civil War economic hardships that so deeply affected thousands of southern communities (Holm et al. 2003). However, Henry County's distinct advantages were its intact infrastructure and suitability for tobacco production, both of which helped lift the county from its losses. Numerous tobacco manufacturers were in operation during this period, and the industry employed 1,000 county residents during the 1890s (Holm et al. 2003).

Perhaps aiding the success of Henry County's economy during the Reconstruction and Growth Period were the railroads that arrived toward the end of the nineteenth century. While earlier generations of Henry County's citizens may have taken advantage of the Roanoke Navigation system as a means to transfer their goods to lucrative markets, commercial river navigation on the Dan and Roanoke rivers was no longer economically viable after 1855 (Joyner and Moore 2006). Inefficient road systems likely hampered the county's full economic potential during the mid-nineteenth century, but the arrival of the Danville and New River Railroad and the Norfolk and Western Railroad in the 1880s improved fortunes. County residents were provided much quicker and more efficient means of accessing the markets of Danville, Virginia, and Winston-Salem, North Carolina (O'Neal 2004). With new railroad service passing directly through Martinsville, the town, incorporated in 1873, replaced Ridgeway as the county's economic hub (Holm et al. 2003).

Shortly after the turn of the twentieth century, Henry County's tobacco economy waned after sustaining multiple generations of local farmers (McClearen and Boyd 1988). Intensive plowing led to soil erosion and the practice of tobacco monoculture in general had severely depleted the soil of its nutrients (Maroney and Barile 2007). Still, tobacco remained the county's dominant cash crop throughout the twentieth century, but it gradually lost ground in the agricultural sector to grain production; 22 grist mills were operational within Henry County by 1889 (Holm et al. 2003).

However, tobacco lost its largest share in Henry County's overall economy to a burgeoning manufacturing sector (Humphries et al. 2010; McLearen and Boyd 1988). While the local economy incorporated an industrial sector at varying scales from the eighteenth century onward, a greater degree of industrialization arrived around the turn of the twentieth century, particularly as railroads provided new opportunities for the shipment of raw and finished goods. Major industrial concerns that arrived or developed in Henry County during the early twentieth century

include Bassett Furniture (1902), the Martinsville Cotton Mill (1909), and later the Martinsville Cotton and Woolen Mills (O'Neal 2004). In addition to these larger firms, other Henry County industrial concerns produced bricks, silk, cotton, and glass during this period (Holm et al. 2003).

3.2.6 WWI to Present (A.D. 1915–Present)

Henry County was able to adopt a largely industrial economy during the early twentieth century, as its agricultural sector, particularly tobacco production, waned. Sixteen furniture factories were operational by 1939, while the Marshal Field Company textile producer alone employed 1,700 county residents in that same year. Growth of industry was not significantly hampered by the Great Depression, and the 1940s saw some of the largest industrial concerns arrive in Henry County. In 1941, one of the world's largest nylon factories was constructed by the DuPont company (Holm et al. 2003). The success of Henry County's industrial sector correlated to a steady population growth from the mid-twentieth century onward. Today, Henry County maintains a largely rural atmosphere inclusive of a strong agricultural and industrial economy. As of 2010, the county was home to 54,151 people and the leading industries, as of 2017, include manufacturing, retail, and healthcare (Data USA 2017; United States Census 2010).

4.0 PREVIOUS INVESTIGATIONS

Research on previous investigations in the project vicinity was conducted using the Virginia Cultural Resource Information System (V-CRIS) electronic database. The primary goal of this research was to identify previous cultural resource investigations and previously recorded archaeological sites and cemeteries within a 1-mile radius of the project area. These data comprise a cultural resources profile of the surrounding area and aid in the contextualization of the project area's archaeological potential. Those resources and surveys that fall within or adjacent to the APE will be described in greater detail to underscore the project area's known archaeological record.

Previously recorded above-ground resources are under review as part of a concurrent architectural history survey for the project's areas of direct and indirect effects, so information on above-ground resources within a mile of the APE are not duplicated in this report. However, above-ground resources that fall within the APE and which may have associated archaeological deposits have clear implications for the APE's archaeological potential. Above-ground resources that meet these criteria, including those that have been previously recorded and those newly identified as a result of the concurrent architectural history survey, are therefore addressed in this report.

4.1 PREVIOUS ARCHAEOLOGICAL SURVEYS

Eight archaeological surveys have been registered with DHR within 1 mile of the project area, including six in Virginia and two that extend into North Carolina. These reports are summarized in Table 4-1 and depicted on Figure 4-1 in Appendix B. Those shown in bold print in Table 4-1 intersect the APE and are discussed in greater detail below.

Table 4-1. Previous Cultural Resources Surveys within 1 Mile of the APE

Report No.	DHR Report Title	Year	Author(s)
BE-035	*I-73 Location Study, Bedford, Botetourt, Henry, Franklin, Roanoke Counties, Virginia: Archaeological Survey*	2003	Mary Ann Holm, John Cooke, Loretta Lautzenheiser
HR-019	*A Phase I Cultural Resource Inventory for the Marrowbone Reservoir Expansion, Henry County, Virginia*	1988	Michael B. Barber
HR-020	*Phase I Cultural Resources Survey of the Proposed Martinsville Bypass, Route 58, Henry County, Virginia*	1988	Douglas C. McLearen, Luke Boyd
HR-051	***Cultural Resource Survey of The Wayside Manor Cellular Tower Site, Henry County, Virginia***	**2007**	**Sean Maroney, Kerri Barile**
HR-062	***Phase I Cultural Resources Survey of the Sharpe Tract, Henry County, Virginia***	**2009**	**Aaron Levinthal, Amy Humphries, Dawn Frost, Carol Tyrer**
HR-063	***Phase I Cultural Resources Survey of Commonwealth Crossing Business Centre Water and Sewer Lines, Henry County, Virginia***	**2010**	**Amy Humphries, Dawn Frost, Carol Tyrer**
WY-045	***Cultural Resources Survey of Proposed Reroutes, Access Roads, and Work Areas, Patriot Extension Natural Gas Pipeline, Wythe, Carroll, Floyd, Patrick, and Henry Counties, Virginia - Addendum I***	**2002**	**Michael O'Neal, Dawn Reid**
WY-049	***Cultural Resources Survey of the Patriot Extension Natural Gas Pipeline, Wythe, Carroll, Floyd, Patrick, and Henry Counties, Virginia***	**2004**	**Michael Keith O'Neal**

The first cultural resource investigation to occur within the APE was undertaken in 2002 when Brockington and Associates, Inc. (Brockington) conducted supplemental cultural surveys to accommodate modifications to the proposed route/facilities of the Patriot Extension natural gas pipeline (O'Neal and Reid 2002). The survey area included 35.3 mile of the rerouted pipeline alignment and associated access roads in addition to 6.22 ac of proposed workspaces/staging areas. A portion of this survey intersects the current APE, bisecting Alternatives A, B, and C on an east-west axis at approximately their halfway points. The survey included pedestrian inspection of the ground surface as well as shovel testing, resulting in the identification/revisiting of seven archaeological sites and five isolated finds. Of these resources, three sites were recommended potentially eligible for listing in the National Register of Historic Places (NRHP). Sites 44WY33 (prehistoric scatter, 44PK286 (historic cemetery), and 44PK287 (historic cemetery), while potentially eligible, were not recommended for additional evaluation due to either their distance from proposed ground disturbance or protective measures put in place to ensure their preservation. These sites are not located within the vicinity of the current APE.

In 2004, Brockington provided documentation for the full investigation of the Patriot Extension natural gas pipeline, including supplemental work conducted after the 2002 investigations discussed above (O'Neal 2004). A portion of this survey area bisects the current APE, intersecting Alignments A, B, and C on an east-west trajectory at their approximate halfway points. The results of the fieldwork conducted in 2003 are not discussed separately in the 2004 report, so the areal coverage and quantities/varieties of resources identified in 2003 are not distinguished from the project's overall results. Nevertheless, it appears the 2003 fieldwork relied on pedestrian surface inspection and shovel testing, consistent with prior field methods. In total, all project fieldwork identified 40 archaeological sites and 24 isolated finds, including prehistoric and historic artifact scatters, nineteenth to twentieth century domestic occupations, and historic cemeteries. Of these, only 44WY239 (Archaic/Woodland prehistoric camp/village) was recommended eligible for listing in the NRHP, while 44WY33 and 44WY241 (prehistoric artifact scatters) were recommended potentially eligible; ultimately, no NRHP recommendations were provided for the eight cemeteries identified. No additional work was recommended for any archaeological resources, as project designs were altered to avoid or otherwise protect potentially significant archaeological sites. No archaeological resources were identified within the portion of the survey area that intersects the current APE.

In 2007, Dovetail Cultural Resource Group conducted an archaeological survey of a proposed access road and pad site in advance of the construction of a telecommunications tower (Maroney and Barile 2007). The survey area is entirely encompassed within the current APE and is located within the boundaries of Alternatives A and B where each expands at the southern end of the project area. The survey included pedestrian surface inspection and the excavation of four STPs. Because the project area soils had been excavated to bedrock and redistributed prior to the survey, no intact cultural resources were identified, and no additional work was recommended.

In 2009, Circa Cultural Resource Management, LLC (Circa) conducted a Phase I survey of the 110-ac Sharpe Tract in advance of its development (Levinthal et al. 2009). While the majority of the survey area is located west-southwest of the current APE, a portion intersects the southern terminus of Alternatives A, B, and C. The survey consisted of pedestrian surface inspection and the excavation of 1,291 STPs, resulting in the identification of one archaeological site. Site 44HR0199 consists of a low-density domestic artifact scatter potentially dating to the mid-twentieth century and clustered around a log cabin. Lacking cultural features, evidence for older

deposits, or stratification, the site was recommended not eligible for listing in the NRHP, and no additional work was recommended. No archaeological resources were identified within the current APE.

In 2010, Circa conducted a Phase I survey of the proposed alignments of water and sewer lines associated with the Commonwealth Crossing Business Center. The survey area transects the APE in numerous locations, including within the southern half of Alternative A, the center and north half of Alternative B, and a small area near the center of Alternative C. The survey included pedestrian surface inspection and the excavation of 370 STPs; all STP excavation occurred along the sewer line corridor, as the water line corridor was disturbed so recently as to warrant pedestrian inspection only. No archaeological resources were identified within either utility corridor, and no additional work was recommended.

4.2 PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

Thirteen archaeological resources have been registered with DHR within 1 mile of the project area, and no archaeological sites have been previously recorded within the APE. Twelve have been registered with DHR as archaeological sites, while one has been registered as an above-ground resource (Table 4-2; Appendix B, Figure 4-1). These include eight prehistoric and five historic sites. Prehistoric sites include camps and unidentified site types dating from the Early Archaic to Late Woodland periods; most of these sites have received only cursory documentation and minimal archaeological testing, if any. Most sites occur on ridge tops or terraces, though not always in proximity to a reliable freshwater source. Historic sites include dwellings, a tobacco barn, and a cemetery collectively dating from the nineteenth to late twentieth century. Twelve sites have not been assessed for NRHP eligibility. Site 44HR0199, a late historic to modern domestic scatter, is the only one to have been evaluated, and it was determined not eligible due to loss of integrity.

Table 4-2. Previously Recorded Archaeological Sites within 1 Mile of the APE

Site/DHR Number	Site Name	Site Type	Temporal Affiliation	NRHP Status
44HR0033	No Data	Camp	Middle Archaic	Unassessed
44HR0044	No Data	No Data	Late Woodland	Unassessed
44HR0045	No Data	No Data	Late Woodland	Unassessed
44HR0047	No Data	No Data	Late Woodland	Unassessed
44HR0048	No Data	No Data	Late Woodland	Unassessed
44HR0055	No Data	Camp	Early to Middle Archaic	Unassessed
44HR0160	FS 3-5	Dwelling	1800-1899	Unassessed
44HR0167	AR 22-1	No Data	Unknown Prehistoric	Unassessed
44HR0199	No Data	Dwelling	1950-1999	Not Eligible
44HR0206	No Data	Dwelling	Late 19th to Early 20th C.	Unassessed
44HR0207	Martin	Cemetery	1890-1912	Unassessed
44HR0208	No Data	Tobacco Barn	Early 20th C.	Unassessed
044-0117	Marrowbone Creek Bridge Area	No Data	Unknown Prehistoric	Unassessed

4.3 PREVIOUSLY RECORDED CEMETERIES

Fourteen cemeteries have been recorded within 1 mile of the project area (Table 4-3; Appendix B, Figure 4-1). Some of these have been previously recorded with DHR, while others have been newly identified as a result of a concurrent architectural history survey. It should be noted that Marrowbone (044-0009) is a ca. 1870 farmstead with an associated cemetery.

Table 4-3. Previously Recorded Cemeteries within 1 Mile of the APE

DHR ID	Resource Name	Temporal Affiliation	NRHP Status	Alternative
044-0009	Marrowbone	Ca. 1870	Eligible	N/A
044-5182	Patterson Cemetery	Early 19th to Mid-20th C.	Eligible	N/A
044-5183	Price Cemetery	Late 19th to Mid-20th C.	Eligible	N/A
044-5184	Payne Cemetery	Mid- to Late 19th C.	Resource No Longer Extant (Relocated)	N/A
044-5188	Watkins Cemetery	Early 20th C.	Eligible	N/A
044-5637	Hawkins-Ramey Cemetery	No Data	Unassessed	A
044-5651	Church-Beale cemetery	No Data	Unassessed	C
044-5695	Redd Family Cemetery	No Data	Unassessed	N/A
044-5698	Miles Family Cemetery	No Data	Unassessed	N/A
044-5717	Farm and Cemetery, 1750 Joseph Martin Highway	No Data	Unassessed	B, C
044-5726	House and Cemetery, 3749 Joseph Martin Highway	No Data	Unassessed	B
Pending	House and Cemetery, 0 Greensboro Road	No Data	Unassessed	A, B
Pending	House and Cemetery, 4759 Soapstone Road	No Data	Unassessed	N/A
44HR0207	Martin	1890-1912	Unassessed	N/A

These cemeteries represent small family burial grounds and collectively date from the nineteenth to mid-twentieth century. DHR has determined the Patterson, Price, and Watkins cemeteries eligible for listing in the NRHP. DHR has determined Marrowbone eligible for the NRHP as well, though it is unclear if the cemetery was determined to be a contributing element or not. DHR determined the Payne Cemetery not eligible given that it has been relocated, while the remaining cemeteries have not been assessed for NRHP eligibility.

Several of these cemeteries are located within or immediately adjacent to the APE. Two cemeteries are located within Alternative A. Within the southern part of Alternative A, an unnamed cemetery associated with a newly recorded above-ground resource is located along the southeast side of Greensboro Road, northeast of J.B. Dalton Road (Appendix B, Figure 4-1a). Within the northern part of Alternative A, the Hawkins-Ramey Cemetery is located along the south side of Soapstone Road west of the intersection with Joseph Martin Highway (Appendix B, Figures 4-1b and 4-1c). The Price and Patterson cemeteries, while not within Alternative A, are located immediately adjacent to its northwestern boundary in the southern part of the APE (Appendix B, Figure 4-1a).

Three cemeteries are located within Alternative B. The southern part of Alternative B encompasses the same unnamed cemetery along the southeast side of Greensboro Road as that contained in Alternative A (Appendix B, Figure 4-1a). In the northern part of Alternative B, an unnamed cemetery was identified along the alternative's western boundary at 3749 Joseph Martin Highway, while another unnamed cemetery is present at 1750 Joseph Martin Highway (Appendix B, Figure 4-1c). Cemeteries immediately adjacent to Alternative B include the Patterson and Price cemeteries along its northwestern edge in the southern part of the APE (Appendix B, Figure 4-1a); an unnamed cemetery north of White House Road and immediately northeast of Alternative B in the southern part of the APE (Appendix B, Figure 4-1a); and the Redd Family Cemetery north of Joseph Martin Highway and east of Alternative B in the northern part of the APE (Appendix B, Figure 4-1c).

Two cemeteries are located within Alternative C. An unnamed cemetery is present within the alternative's boundaries immediately north of White House Road in the southern part of the APE (Appendix B, Figure 4-1a), while a second unnamed cemetery is located at 3749 Joseph Martin Highway within the northern part of the APE. Cemeteries adjacent to Alternative C include the Patterson Cemetery along its northwestern edge in the southern part of the APE, as well as an unnamed cemetery along the southeast side of Greensboro Road and immediately southwest of the alternative in the southern part of the APE (Appendix B, Figure 4-1a).

Other known cemeteries are present within the broader vicinity of the APE, but their distances suggest they would not be impacted by the current build alternatives. Interestingly, each of these cemeteries represents small, family burial grounds rather than larger communal cemeteries centered on religious or municipal properties. The prevalence of historic family cemeteries located on private farmsteads suggests the practice of home burial was quite common during the historic period, and it may be typical for most established, historic farmsteads in the area to contain a cemetery. Therefore, it is reasonable to expect that additional, unrecorded cemeteries may be present within or adjacent to the APE.

4.4 PREVIOUSLY RECORDED ABOVE-GROUND RESOURCES

A concurrent architectural history survey has documented previously recorded above-ground resources within the vicinity of the APE, precluding the need to duplicate that information in full here. These data were reviewed, however, to determine if any previously recorded above-ground resources located within or immediately adjacent to the APE have the potential to exhibit archaeological deposits that might extend into the APE. Factors such as resource age, proximity to the APE, current ground conditions, and NRHP status were taken into consideration. As a result, two previously recorded above-ground resources were identified that have the potential to include archaeological deposits that extend into the APE (Table 4-4).

Table 4-4. Previously Recorded Above-Ground Resources

DHR ID	Resource Name	Temporal Affiliation	NRHP Status	Alternative
044-0002	Belleview	1783	Listed	B
044-5146	Price Home	Ca. 1840	Not Eligible	A, B, C

The Belleview farmstead represents a very rare surviving example of eighteenth-century settlement in the area and is the only known resource of its age within the APE. The property directly intersects Alternative B and likely includes archaeological deposits associated with its long occupational period (Appendix B, Figure 4-1b). Given Belleview's age and concomitant

rarity, potential archaeological deposits associated with this property may represent some of the most significant historic archaeological resources potentially within the APE.

The Price Home, while somewhat more recent, is also rare for its age among above-ground resources in the vicinity. While not located within the APE, the ruins of the ca. 1840 dwelling are located immediately beyond the boundaries of Alternatives A, B, and C at the southern end of the APE (Appendix B, Figure 4-1a). It is expected that archaeological deposits associated with this property will extend into the APE, particularly given that the Price cemetery is located on the opposite side of the APE boundaries and thus suggesting the intervening land within the APE may have been intensively utilized/occupied.

A third above-ground resource is worth noting, though it is not likely to include archaeological deposits that extend into the APE. Marrowbone (044-0009), a ca. 1870 farmstead that DHR has determined NRHP eligible, is mapped in V-CRIS immediately west of Alternatives B and C (Appendix B, Figure 4-1b). While its boundaries in V-CRIS nearly abut Alternatives B and C, these boundaries are inclusive of a large area that extends far beyond the dwelling, outbuildings, cemetery, and the presumed extent of associated archaeological deposits. It is mentioned here in case any future modifications to the build alternatives result in the APE boundaries encroaching upon potential archaeologically sensitive portions of this resource (i.e., within the vicinity of any buildings or burials).

5.0 RESEARCH DESIGN

5.1 OBJECTIVES

The objective of this Phase Ia assessment is to provide a preliminary characterization of the APE's archaeological potential, to the extent possible, using historic documentation, previous cultural resources studies and site files, and environmental data. The potential for each build alternative to contain significant archaeological resources, including those that may be chiefly valued for reasons other than information potential, was examined to provide VDOT with additional guidance when determining each alternative's potential impacts to cultural resources.

5.2 RESEARCH METHODS

Background information was compiled from a wide variety of sources and utilized to aid in determining the APE's archaeological potential. Information on previously recorded cultural resources and surveys was collected from V-CRIS as well as the DHR archives. Environmental data were gathered from several digital repositories, including the USDA NRCS and the United States Geographical Survey (USGS).

Background research was utilized to develop relevant cultural contexts, characterize the APE's known archaeological record, and assess changes to its built environment and land use practices, to the extent possible. This research relied on historic maps, aerial photographs, archival materials, cultural resources reports, and historic narratives. Where possible, the APE was georeferenced with historic maps and aerial photographs to illustrate changes to the built environment over time. However, historic maps often incorporate spatial inaccuracies that affect the precision of georeferencing. Therefore, the APE's location relative to features illustrated on historic maps is understood to be approximate. Historic background research was gathered from a wide variety of electronic resources and materials available from the following repositories:

- DHR Archives
- V-CRIS
- Library of Congress
- Library of Virginia
- USGS TopoView Service
- USGS EarthExplorer Service

Background research was augmented where possible via a windshield survey to confirm environmental conditions on the ground. Because most of the APE is not readily accessible, this survey was limited to areas that could be visually inspected from convenient locations such as road crossings. The objective was to identify areas of ground disturbance and/or additional potential archaeological properties otherwise absent from existing digital datasets.

5.3 ARCHAEOLOGICAL POTENTIAL MODEL

An archaeological potential model was generated by first reviewing current soils and land use data, local topographical and hydrological features, historic mapping and aerial photography, and previously recorded archaeological sites and cultural resources surveys germane to each alternative. Among the data sources utilized for prehistoric and historic predictive modeling were:

- USDA NRCS Soil Survey Geographic Database (SSURGO) soil data

- USGS National Hydrography Dataset
- USGS, Digital Elevation Models
- Virginia Geographic Information System Clearinghouse orthoimagery
- USGS historic topographic mapping
- V-CRIS cultural resources data
- Existing literature on archaeological site location prediction models (e.g., Blondino et al. 2018; Madry and Seibel 2003; Madry et al. 2006; Wright 2016).

These data were individually analyzed and then synthesized to produce an archaeological potential model that assesses the probability of a given alternative, or parts thereof, to contain intact archaeological deposits. An ordinal value of low, moderate, or high archaeological potential was assigned to the appropriate area(s) based on conditions tailored to prehistoric and historic sites.

Prehistoric archaeological sites tend to be located in specific settings based on environmental variables such as topography and distance to water. These variables, along with other natural and built environment variables, are used to construct a model that can be used to predict the potential of a location to contain archaeological sites. The following variables were used to construct the model:

- Previously recorded archaeological site locations (to identify known patterns of prehistoric site location)
- Slope/topography (slopes less than or equal to 15 percent, slopes greater than 15 percent)
- Disturbed soils/ (disturbed soils have a lower probability to contain intact sites)
- Soil drainage (well-drained or poorly-drained)
- Distance to perennial stream or wetlands
- Modern land use/land cover (LULC) datasets (primarily identifies areas of disturbance that are unlikely to contain intact archaeological sites)

For distance to water, a review of existing literature on prehistoric site location shows a variety of distance-to-water criteria are used, ranging from 328 to 948 ft (100 to 300 m) (Bellhouse et al. 1996; Blondino et al. 2016; Harris 2013; Madry and Seibel 2003; Madry et al. 2006) up to 6,562 ft (2,000 m) (e.g., Wright 2016). Based on a number of factors, including the literature review and high number of perennial and intermittent streams located throughout the project area, the team settled on the following variables for distance to water:

- High potential = 0–656 ft (0–200 m) from perennial water source;
- Moderate potential = 656–1,640 ft (200–500 m) from perennial water source; and
- Low potential = over 1,640 ft (500 m) from perennial water source

Historic sites do not exhibit patterning similar to prehistoric sites and thus are found across a wider variety of landforms. In addition, historic land use patterns changed over time as methods of transportation evolved. Sites such as mills or military earthworks may be located on steep slopes, dwellings or farmsteads may be located on more level terrain, and quarters for enslaved people may be located in otherwise undesirable terrain such as steep slopes or poorly-drained areas. Regardless, historic sites show some patterning and the following variables were used to construct a sensitivity model:

- Previously recorded site locations (to identify potential patterns)

- Historic mapping/aerial photography
- Slope/topography (slopes less than or equal to 15 percent, slopes greater than 15 percent)
- Soil drainage (e.g., poorly-drained, well-drained)
- LULC

Areas of low potential may contain archaeological resources, but lack evidence for intensive prehistoric/historic occupation and/or are expected to have been heavily disturbed by modern developments. Areas of low prehistoric potential may include poorly-drained soils, distances to reliable water in excess of 1,640 ft (500 m), and topographic slope greater than 15 percent. Areas of low historic potential may include those totally lacking evidence for proximity to a known occupation based on historic documentation and modern cultural resource surveys and which do not exhibit characteristics common to local settlement patterns (e.g., areas that are distant from historic roads or other built features, areas that are excessively sloped). Areas of low potential also include the locations of previous, recent archaeological surveys conducted in accordance with DHR standards and which identified no cultural resources in the APE.

Areas of moderate potential exhibit indicators that a given area would have been suitable for intensive prehistoric/historic occupation, but the presence/integrity of associated archaeological deposits cannot be characterized with a high degree of confidence. Good indicators for prehistoric occupations may include a combination of environmental factors such as well-drained soils, low-relief topography, and moderate proximity to known, dependable water sources; for this model, a moderate proximity is defined as a distance of between 656 and 1,640 ft (200 and 500 m) as adapted from the predictive models noted above. Such landforms represent a second tier of candidate settings for prehistoric occupation when more ideal locations in closer proximity to reliable water sources are known to exist nearby.

Good indicators of moderate historic potential include environmental and historical conditions. For the APE, low-relief, well-drained landforms and more likely to contain historic archaeological resources than other environmental settings. While some site types, such as mills, military earthworks, or enslaved peoples' quarters may have been developed on more steeply sloped or poorly-drained areas, there is no evidence to suggest such site types are common to the APE, though in the case of mills and enslaved quarters their occurrence is still possible. Rather, farmsteads and their associated cemeteries represent the most common expected site type based on background research, and these would have been more easily developed on relatively level terrain free of saturated soils. The distance to surface water is a less critical condition, as some historic occupations may have relied on wells for freshwater procurement. While areas with moderate historic archaeological potential contain no available cartographic, photographic, or archaeological evidence of occupation, such areas take into account what is known of historic settlement patterns (e.g., density, distribution, apparent landform preferences, proximity to roads and other built features). Such an area, while not known to have been historically occupied, exhibits no apparent characteristics that would otherwise suggest it to have low potential.

Areas of high potential generally include known archaeological sites or are very likely to include undocumented archaeological resources and do not appear to have been subjected to a significant degree of ground disturbance. However, no known archaeological sites have been registered within the APE and a determination of high probability instead relies on identifying those areas in which environmental and cultural factors have created the conditions most conducive for site formation. In terms of prehistoric resources, high potential areas are those that exhibit well-

drained, low-relief topography within 656 ft (200 m) or less of a known, dependable source of freshwater. Prehistoric settlement models, together with data from previously recorded sites in the vicinity, strongly suggest that such locations will exhibit evidence for prehistoric occupation. In terms of historic resources, high potential areas are those that correspond to nonextant buildings illustrated on historic maps, the known and/or historically mapped locations of cemeteries, and areas within or immediately adjacent to historic above-ground resources for which associated archaeological deposits are highly likely. For mapped historic buildings and cemeteries, a high potential buffer of 200 ft (61 m) was placed around the resource locations, as this is expected to account for any spatial discrepancies in historic mapping and is expected to encompass the core distribution of archaeological materials associated with the building/cemetery. For potential archaeological deposits associated with historic above-ground resources near or within the APE, the area of high potential corresponds to either the resource boundaries as mapped in V-CRIS or the property boundary as mapped at the county level.

Following the synthesis of all relevant data, the archaeological probability was graphically illustrated on a modern aerial image of the APE. It should be noted that the boundaries of individual probability areas represent approximations based on the best data available for this review.

6.0 ANALYSIS AND RECOMMENDATIONS

6.1 ARCHAEOLOGICAL POTENTIAL ANALYSIS

A review of historic maps, previous investigations and recorded sites, topography, and existing conditions contributed to an analysis of the archeological potential within the APE. Evaluations of prehistoric and historic site potential are provided for the entire APE, followed by a discussion of the individual archaeological potential of Alternatives A, B, and C.

6.1.1 Built Environment

The current built environment has implications for the potential presence of archaeological resources, as historic/modern disturbances may have negatively impacted any such deposits. Based on historic land uses discussed in section 3.2, it is reasonable to suspect that most of the APE has been plowed/logged at some point during the historic and/or modern eras. These activities likely disturbed or displaced the upper layers of the natural soil column, redistributing artifacts from their primary depositional context. More deeply buried resources, such as archaeological features or artifacts in buried soil layers, may have survived these disturbances such that a site's information potential has not been severely compromised. Therefore, while historic/modern plowing or deforestation are prevalent forms of disturbance, the general extent of disturbance is not considered severe.

Within each of the alternatives, the built environment features the same general elements. Each alternative encompasses roads, utility corridors, and low-density or isolated residential areas. While the development of these cultural landscape features likely resulted in deep ground disturbances that have likely significantly impacted the integrity of undocumented archaeological resources, they account for a very small portion of the APE's total area. All three alternatives feature substantially larger areas of standing forests and/or agricultural fields. The very limited quantity and extent of built features suggests that most of the APE has not been subjected to deep ground disturbance. This was confirmed, to the extent possible, via a windshield survey of readily accessible portions of the APE.

6.1.2 Prehistoric Site Assessment

Prehistoric site potential is typically modeled based on a variety of environmental conditions (e.g., slope, soil drainage class, distances to water sources), the results of previous investigations, and the extent of modern disturbances. While the APE encompasses areas of slope in excess of 15 percent, poorly-drained soils, standing water, and minor ground disturbances, each alternative, in general, exhibits extensive areas where local soil, landform, and hydrological conditions are conducive to prehistoric occupations.

Settlement models presented in section 3.1 strongly suggest that stable, well-drained terraces above reliable freshwater sources offer the highest probability for encountering intact prehistoric archaeological resources. In particular, those terraces surrounding Marrowbone Creek, the largest drainage to cross the APE, are of particular interest, as are its surrounding floodplains where prehistoric agricultural activity and/or intensive occupations may have occurred. Landforms within the vicinity of the APE's numerous lower order streams also likely offered suitable settings for prehistoric activities and may have been intensively utilized at any point (or repeatedly) throughout the prehistoric period. Even low-relief ridges or upland flats may have been utilized, as will be discussed more fully below.

Prehistoric site types that may be expected within any of the three alternatives include artifact scatters, short-term encampments, resource procurement sites, and base camps/villages. Among these, short-term encampments are to be more commonly expected within the APE relative to other site types. This is simply due to the settlement/subsistence patterns evident throughout the Archaic and Woodland periods as discussed in section 3.1. These models strongly suggest that short-term forays were constantly utilized as a means to support larger base camps/villages, providing additional food, lithic, and other resources that are more easily acquired by small groups of highly mobile people. Since multiple forays, resulting in multiple short-term encampments, can be expected to have supported a single base camp/village, the former site type can be expected to occur at much higher frequencies within a given area.

Furthermore, short-term encampments were not necessarily bound by the same considerations as a larger, more intensive occupation when it came to landform selection. For instance, while a particular terrace or bluff may not be ideal for long-term settlement (e.g., physically constrained, poor resource access, exposure), such a landform may be well suited to a brief occupation for which the landform had to meet a much lower threshold of habitability requirements. Proximity to a reliable water source, for example, is crucial for a large and long-term occupation but may not have been a critical variable to those briefly occupying an expedient camp site. Some of the previously recorded prehistoric sites in the vicinity of the APE occur at great distances from known freshwater sources. Therefore, while the chances of encountering this site type are certainly greater nearer to freshwater, virtually any well-drained, low-relief landform in the APE could have been utilized as a convenient place to camp or perform resource-extraction activities.

While short-term encampments may be more commonly expected within the APE, there is the potential for larger, more permanent settlements as well. Base camps/villages may be expected on terraces and/or floodplains adjacent to significant waterbodies. As Marrowbone Creek represents the highest order stream within the APE, it is perhaps most likely that such occupations may be found in close proximity to this resource and its major tributaries such as Little Marrowbone Creek and Stillhouse Run.

Previously recorded archaeological sites in the vicinity testify to this potential. While never excavated, notes included with the site file for 44HR0044 indicate that, based on surface observations and informants' narratives, the site likely represents a very intensively occupied habitation on a terrace above Marrowbone Creek. The form further notes that the bottomlands adjacent to the creek would have offered suitable sites for Late Woodland agricultural activities. The same was noted on the form for nearby 44HR0045, which represents the only other previously investigated prehistoric site on Marrowbone Creek near the APE. Both site forms theorized that intact archaeological features may be abundant based on the quantity and variety of prehistoric lithics and ceramics evident on the surface and the minimal evidence for extensive ground disturbance. These sites strongly suggest a high potential for similar site types along Marrowbone Creek and other important drainages.

Since the APE appears to have been subjected to minimal ground disturbance, prehistoric archaeological deposits may frequently be found intact. Historic plowing/logging may have redistributed some prehistoric artifacts, potentially destroying smaller and more ephemeral occupation, but more intensive occupations likely produced features (e.g., pits, burials, dwellings) extending far enough into the soil column as to have survived historic plowing at least partially intact. Potentially intact, intensively occupied prehistoric sites may represent the most significant prehistoric resources within the APE. While they could occur along any drainage that

the alternatives cross, environmental and cultural data strongly suggest they are most likely to be in the vicinity of where each alternative crosses Marrowbone Creek.

The temporal affiliation of potential prehistoric site types ranges from the Archaic through Woodland periods; Paleoindian resources are very unlikely given their rarity in general, though it is possible that contemporaneous populations would have utilized the broader landscape. It is expected that Woodland sites will be more commonly encountered within the APE, simply due to the fact that prehistoric populations increased over time as discussed in section 3.1. This is further supported by V-CRIS data, in which there is a distinct, steady increase in registered prehistoric sites from the Early Archaic to the Late Woodland periods in Henry County.

Given their close proximity, Alternatives A, B, and C exhibit similar distributions of the soil, topographic, and hydrological variables that impact prehistoric archaeological potential. Well-drained, low-relief terraces, floodplains, and ridgetops are present within each alternative, and the very limited extent of modern ground disturbances suggests these landforms have remained in a relatively stable condition conducive to archaeological preservation. Prehistoric populations may have preferentially selected any of these landforms for short- and long-term occupations, particularly if within the vicinity of an easily accessible and reliable source of freshwater. Only in areas of modern disturbance, excessive slope, excessive distance from water, and/or poor drainage does the expectation for encountering prehistoric decrease. Such areas are fairly limited within each of the alternatives.

6.1.3 Historic Site Assessment

Historic site potential is typically modeled on previously recorded resources, historic mapping/aerial imagery, and settlement/subsistence strategies derived from an applicable cultural context. Environmental data are considered as well, given that areas with steep slopes, poor drainage, and/or significant ground disturbance are unlikely to include historic archaeological resources.

6.1.3.1 Previously Recorded Historic Resources

As noted in section 4, few historic archaeological sites have been registered with DHR within 1 mile of the APE. Those that have are associated with nineteenth and twentieth century farmsteads and include the sites of dwellings, outbuildings, and cemeteries. The scarcity of previously recorded historic archaeological sites is in part a product of limited prior survey coverage. While several previous cultural resources surveys have intersected the APE, these typically included narrow, linear survey corridors that sampled a very small portion of the broader APE. Furthermore, given that the APE is located in an area known to have had a relatively diffuse rural population throughout the historic period, it is expected that such survey corridors would have a limited potential of intersecting a historic site.

No previously recorded historic period archaeological sites fall within the APE. However, several cemeteries are located within or immediately adjacent to the APE, as illustrated on Figure 4-1 in Appendix B. Several more are located within 1 mile of the APE, and most appear to be family burial plots associated with historic farmsteads. The abundance of small, private cemeteries may be an indication that the practice of home burial was fairly common among the local population during the historic period, perhaps owing to the great distances and poor roads that would otherwise have to be endured to accommodate burial in a church cemetery or other communal graveyard. While this practice may continue to the present in some locations, it

appears to have been most common prior to the mid-twentieth century according to the results of a concurrent architectural history survey. The prevalence of known family burial plots suggests that virtually any historic farmstead to have existed within the APE may include a cemetery component. Conversely, the presence of a cemetery likely indicates that a historic farmstead was present nearby, although the cemetery may represent the only remaining above-ground evidence of the farmstead.

Other than cemeteries, some above-ground resources previously recorded within or immediately adjacent to the APE have the potential for associated archaeological deposits. Historic farmsteads including NRHP-listed Belleview (ca. 1783; 044-0002), NRHP-eligible Marrowbone (ca. 1870; 044-0009), and the NRHP-not eligible Price Home (ca. 1840; 044-5146) likely contain extensive archaeological deposits given that each has been occupied for 150 years or more. Belleview directly intersects the APE, and it is expected that associated archaeological deposits will occur within the APE. While the V-CRIS boundaries of Marrowbone are adjacent to the APE, the dwelling and outbuildings are several hundred feet from the nearest build alternative, and archaeological deposits associated with this property are not expected to extend to the APE; Marrowbone is underscored here simply in the event that the build alternatives are revised so as to bring the APE boundaries within closer proximity to the resource and potential archaeological deposits within its immediate vicinity. Lastly, the Price Home's V-CRIS boundaries do not intersect the APE either, but deposits associated with this resource are nonetheless expected within the APE. This is due to the fact that the V-CRIS boundaries only encompass the dwelling, which is located just beyond the edge of the APE, and surrounding archaeological deposits associated with the farmstead likely extend into the APE.

6.1.3.2 Historic Maps and Aerial Photographs

Historic maps and aerial photographs were examined in an effort to identify potential archaeological deposits associated with historic occupations that may no longer be extant and which have not been registered with DHR. This information is a critical component of the historic site assessment, providing a baseline of known settlement patterns within the APE and supplementing previously recorded sites.

The APE was georeferenced as closely as possible relative to the historic maps, but varying degrees of spatial inaccuracy inherent to the historic maps precludes a precise rectification. Therefore, the APE boundaries shown on the following historic map figures represent best-fit approximations. Furthermore, the built environment depicted on many historic maps is subject to the cartographer's discretion and cannot be assumed to be a faithful reproduction of all standing structures and landscape features present at the time the map was drawn. Thus, the locations, extents, and in some cases presence/absence of historic built features in reference to the APE are provisional pending additional historic/archeological documentation.

No available maps produced prior to the twentieth century depict the APE with sufficient detail to accurately characterize its built environment during the eighteenth and nineteenth centuries. Nevertheless, some maps dating to the period include at least a general overview of the APE, occasionally noting nearby roads and settlements.

The 1755 Fry and Jefferson map is earliest available map to provide some detail of the APE and its vicinity (Appendix B, Figure 6-1). Marrowbone Creek is clearly depicted, though no settlements are evident within the vicinity. It is known from the historical context presented in section 3.2 that European settlement of what is now Henry County was underway by at least the

1740s, suggesting that while corporate settlement may not have occurred nearby by 1755, individual farmsteads and/or plantations may have been developed. Their lack of representation on the Fry and Jefferson map can be attributed to its scale and purpose, accommodating a reasonably detailed view of the entire Virginia colony; individual properties or occupations typically were not illustrated. While the farmsteads may not have been shown, the mechanism by which so many farmers arrived from the north is clearly evident west of the APE. The "Great Road" is shown piercing the Blue Ridge on a sinuous north-south trajectory, linking the Yadkin River in North Carolina to Philadelphia, Pennsylvania.

The 1770 Henry map provides somewhat less detail than the 1755 Fry and Jefferson map (Appendix B, Figure 6-2). Marrowbone Creek is not depicted, nor are any elements of the local built environment (if such existed) within the vicinity of the APE. As with the 1755 Fry and Jefferson map, the lack of localized detail is a product of the map's colony-wide scale at its greater focus on displaying Virginia's counties and major waterbodies. While not evident on Figure 6-2, this map does illustrate a courthouse approximately 15 miles northeast of the project area. Presumably serving as the Pittsylvania County courthouse given its central location within the county, this building signifies that settlement within the surrounding area has occurred by this time.

The statewide 1827 Böÿe Map provides additional details absent from earlier maps, including a more accurate rendering of local waterways, the early network of roads within and adjacent to the APE, and some historic occupations (Appendix B, Figure 6-3). Marrowbone Creek, including its two main branches, is clearly evident and is crossed by at least three roads, including one that passes east-west across the northern end of all three alternatives. A short distance west of Alternative A, a sunburst symbol indicative of a mill is present where this road crosses the northern branch of Marrowbone Creek. Another mill is shown on the main branch of Marrowbone Creek at a distance east of Alternative C, with many more mills depicted along the Smith River and its tributaries. Such a proliferation clearly demonstrates the extent and distribution of the area's early industrial heritage. To the north of the APE, Martinsville is shown for the first time at the intersection of several roads. While this map does not depict many specific elements of the local built environment, it provides insight into the transportation networks along which settlement occurred and showcases the extent to which overland travel linked rural communities. A "corrected" copy of this map produced in 1859 showed no significant changes within the APE or its vicinity and seems to exhibit a greater degree of spatial distortion when georeferenced (Appendix B, Figure 6-4).

No significant changes are evident on the statewide 1895 Bien Map, which largely shows the same environment at the same scale as the 1827 and 1859 maps (Appendix B, Figure 6-5). The three mills along Marrowbone Creek were still evident, and the early nineteenth century road network appears to have undergone very few modifications within the APE's vicinity.

The 1911 Barr Map is the earliest available map to represent Henry County at a much more localized scale (Appendix B, Figure 6-6). The map includes a much more detailed depiction of the sinuous network of roads among the rural community south of Martinsville. It also illustrates other linear features such as bridges and railroads alongside the location of post offices, churches, schools, and mills. The only built features depicted within the APE are several roads and a portion of the Western Railroad. However, the map intentionally omitted dwellings, businesses, cemeteries, and built improvements other than those listed above. Therefore, while

the APE appears virtually unimproved, this is merely a product of the map's intended purpose as a general road map rather than a full rendering of the contemporaneous built environment.

The earliest available map to provide a detailed view of the built environment within the APE was issued by the USGS in 1926 (Appendix B, Figure 6-7). Few buildings are evident within the southern end of the APE (Appendix B, Figure 6-7a). A dwelling is shown on the east edge of Alternative A 3,000 ft (900 m) northwest of the Norfolk and Western Railroad. Two dwellings are evident with Alternative C approximately 3,500 ft (1,066 m) and 5,500 ft (1,676 m) north of the Norfolk and Western Railroad, respectively. Both appear at the end of separate unimproved roads leading west from what is now Lee Ford Camp Road. No buildings are evident within the central part of the APE; that which is shown within Alternative C on Figure 6-7b is the same as the northernmost dwelling shown on Figure 6-7a. Three buildings are evident within the northern end of the APE (Appendix B, Figure 6-7c). Within Alternative A, one dwelling is apparent within a proposed interchange on the northeast side of what is now William F. Stone Highway, while another is shown along the northeast edge of Alternative A where it parallels what is now William F. Stone Highway. Within Alternative C, one dwelling is shown along a road that is no longer extant and within the immediate vicinity of what are now the eastbound lanes/berm of William F. Stone Highway.

The next available detailed map was produced by the USGS in 1944 (Appendix B, Figure 6-8). Several buildings are evident within the southern end of the APE (Appendix B, Figure 6-8a). Southeast of the Norfolk and Western Railroad, one building is evident within all three alternatives near the APE's southern extent, while two others appear along the south edge of all three alternatives to the east. Where Alternatives A and B overlap southeast of the Norfolk and Western Railroad, eight buildings are evident within or along the edge of both alternatives. Northwest of the Norfolk and Western Railroad, no buildings are evident within Alternative A, although that which was shown in 1922 along the alternative's eastern edge is still apparent. Within Alternative B, a single building overlaps the alternative's western edge approximately 2,750 ft (838 m) northwest of the railroad. Within Alternative C, no new buildings are evident, and both of those shown on the 1926 USGS map are still apparent.

Few buildings are evident on the 1944 USGS map within the central part of the APE (Appendix B, Figure 6-8b). Within Alternative A, two buildings partially overlap the alternative's east edge while one is fully encompassed within the alternative's boundaries. Each is shown in the vicinity of a network of unimproved roads, some of which are evident on modern mapping as apparently unused roads. Within Alternative B, two new buildings are shown where the alternative expands near the Magna Vista School Road and Soapstone Road intersection. No buildings are evident within Alternative C in the central part of the APE.

Few buildings are evident on the 1944 USGS map within the northern part of the APE (Appendix B, Figure 6-8c). Within Alternative A, the building formerly shown within a proposed interchange on the northeast side of what is now William F. Stone Highway is no longer evident. That which was shown along the northeast edge of Alternative A where it parallels what is now William F. Stone Highway is still apparent, but its location is shown slightly to the southeast and on the northeast edge of where Alternatives A and B overlap. Within Alternative B, four buildings are evident within the proposed interchange with William F. Stone Highway, the southernmost of which partially overlaps the northwestern extent of Alternative C. No other new buildings are shown within Alternative C, and that which was illustrated within the immediate

vicinity of what are now the eastbound lanes/berm of William F. Stone Highway was still extant by 1944.

The earliest available aerial photographs to provide full coverage of the APE were taken in 1950 (Appendix B, Figure 6-9). Unfortunately, the resolution and contrast limit the visibility of individual structures potentially within the APE, but it is nonetheless valuable for characterizing contemporaneous land use practices. Within the southern part of the APE, all three alternatives consist of a mixture of agricultural land and forested areas (Appendix B, Figure 6-9a). Within the central part of the APE, Alternative A is shown as largely forested, while B is more equally mixed between forest and farmland and C consists almost entirely of farmland (Appendix B, Figure 6-9b). Similar land use practices are evident in the north part of the APE, with A being more heavily forest, B being a mixture of farm and forest, and C being almost entirely agricultural (Appendix B, Figure 6-9c).

The APE was also captured in aerial photographs from 1963 (Appendix B, Figure 6-10). While these photographs exhibit better clarity relative to those taken in 1950, it can be difficult to distinguish individual buildings, and so these photographs are presented as a reference for a series of 1964/1965 USGS maps that more clearly elucidate the APE's built environment (Appendix B, Figure 6-11).

Numerous buildings are evident within the southern part of the APE on the 1964/1965 USGS maps (Appendix B, Figure 6-11a). Southeast of Route 220, at least 15 dwellings and four outbuildings are shown within the boundaries of Alternatives A and B. These appear to include most of those shown on the 1944 USGS map, interconnected via a new network of unimproved roads branching off of Route 220. No buildings are shown within Alternative C. The building shown within the southern extent of all three alternatives on the 1944 USGS map is no longer evident, having been demolished between 1940 and 1950 when this section of Route 220 was constructed (Appendix B, Figures 6-8a and 6-9a). To the east, the two buildings shown in 1944 on the south edge of all three alternatives appear to be no longer extant (though it is possible that the easternmost building was simply mapped farther southwest than its location on the 1944 USGS map). No buildings are shown within the APE north of Route 220. That which was shown in 1926 and 1944 along the eastern edge of Alternative A was mapped a greater distance north in 1964/1965, and the two buildings mapped within Alternative C in 1926 and 1944 were no longer extant by 1965. A cemetery is shown within Alternative C, however, on the north side of White House Road approximately 1,500 ft (457 m) northwest of its intersection with Route 220. This corresponds to an unnamed cemetery shown on Figure 4-1a.

Few buildings are evident on the 1964/1965 USGS maps within the central part of the APE, and several of the buildings shown in this location on the 1944 USGS map are no longer apparent (Appendix B, Figure 6-11b). Within Alternative A, all three buildings shown on the 1944 map were demolished by this time. To the north, a cemetery is shown within an expanded section of Alternative A on the south side of Soapstone Road. This corresponds to an unnamed cemetery shown on Figure 4-1b. Within Alternative B, the building shown in 1944 on the south side of Soapstone Road is no longer evident; that which was shown within Alternative B on the north side of Soapstone Road was still mapped in 1964/1965 along with two other buildings constructed between 1944 and 1964/1965.

Few buildings are evident on the 1964/1965 USGS maps within the northern part of the APE (Appendix B, Figure 6-11c). No buildings are evident within Alternative A, and that which was

shown along the north edge of Alternatives A and B on the 1944 USGS map was either demolished or mapped farther north and beyond the APE boundaries. Within Alternative B, 12 buildings are shown within the alternative's proposed interchange with US 220 (note that on Figure 6-11c some buildings are difficult to see because they are beneath the alternative's boundary line). It is unclear if any of these represent the four buildings shown in this location on the 1944 USGS map. At least three of these buildings also overlap the northwestern extent of Alternative C. No other buildings are shown within Alternative C, and that which was shown in 1926 and 1944 within the immediate vicinity of what are now the eastbound lanes/berm of William F. Stone Highway was demolished by this time.

USGS maps produced between 1978 and 1984 were examined principally to determine if the contemporaneous construction of the William F. Stone Highway had any impacts on the APE's late historic building stock (Appendix B, Figure 6-12). The southern and central parts of the APE show no changes to the building stock within any of the alternatives (Appendix B, Figures 6-12a and 6-12b). In the north part of the APE, the only changes are evident within the north extent of Alternative B and overlapping portions of Alternative C (Appendix B, Figure 6-12c). The in-progress construction of William F. Stone Highway appears to have resulted in the loss of one building in this portion of the APE, while six new buildings were constructed by this time.

As the foregoing discussion demonstrates, historic mapping that provides significant detail of the APE's built environment is not available prior to the early twentieth century. The 1926 USGS map is the earliest to provide a relatively detailed view of the distribution of buildings within the APE and its immediate vicinity. This map shows fairly dispersed settlement patterns, and while there is a dearth of earlier detailed mapping available, it can be assumed that prior to 1926, historic settlements would have been even more diffuse based on known trends in Henry County's population density. In 1920, for example, Henry County's population density was approximately 53 people per square mi. In 1900, there were 50 people per square mile, in 1880 there were 42, in 1850 there were 23, and in 1800 there were only 14 people per square mile (World Population Review 2019). Thus, while there are no available maps prior to 1926 that detail the local built environment, it can be assumed that the APE would have been even more sparsely inhabited given the much lower population densities of the nineteenth century. This is not to say that archaeological sites prior to the twentieth century are not expected to occur within the APE, just that they are expected to occur less frequently than their later counterparts.

6.2 ARCHAEOLOGICAL POTENTIAL OF THE APE

Based on previous cultural resources investigations, site locations, environmental data, historic mapping, and historic/modern land uses, the APE expectedly includes areas of low to high archeological potential (Appendix B, Figure 6-13). High potential areas are most common (510 ac), followed by moderate (331 ac) and low (227 ac) potential areas. This discussion will address the potential for prehistoric and historic archaeological resources independently given that these are modeled on very different assumptions, before addressing differences in the archaeological potential between Alternatives A, B, and C.

6.2.1 Prehistoric Archaeological Potential

Prehistoric archaeological potential was largely driven by local settlement patterns gleaned from the cultural context and previously recorded sites, as well as current environmental data (topography, soil drainage, distance to freshwater). Areas of low potential correspond to areas of significant ground disturbance, excessive slope, poorly-drained soils, and excessive distance to

known water sources. Since areas of significant ground disturbance and poor soil drainage are minimal, areas of low prehistoric archaeological potential are largely underpinned by a combination of steep topography and distance to dependable water sources. Areas of moderate prehistoric archaeological potential include landforms within 1,640 ft (500 m) of a reliable water source, as well as low-relief landforms such as ridge tops; ridge top sites, while not common, have been reported in the vicinity and are indicative of settlement/subsistence patterns that could have characterized portions of the APE.

Areas of high prehistoric archaeological potential correspond to well-drained, low-relief landforms within 656 ft (200 m) of a reliable freshwater source. Such landforms may include floodplains, terraces, and other upland areas where short-term encampments and/or long-term base camps/villages may have coalesced. While no prehistoric archaeological sites have been reported within the APE, several have been reported within the vicinity, including small camps and much larger village sites. In particular, the areas around Marrowbone Creek may have provide most attractive for intensive prehistoric occupations. As the largest order stream within the APE, it would have exhibited a steadier, greater supply of freshwater relative to the smaller feeder streams nearby, and it would have offered larger terraces and floodplains conducive to the support of a greater number of inhabitants.

Prehistoric site types that may be present within the APE include artifact scatters, short-term encampments, and larger base camps/villages. Landforms conducive to prehistoric occupations appear to have remained relatively stable, with minimal historic or modern disturbances. This suggests that any potential prehistoric sites may have retained good archaeological integrity and, depending upon the nature of the deposits, may be able to contribute significant information to local prehistory. This is particularly true of the larger, more complex base camps/villages that are known to exist in the vicinity, but which have never been formally investigated or evaluated for their information potential. The highest potential for encountering intact, potentially significant prehistoric archaeological sites occurs on relatively level, stable landforms adjacent to reliable sources of freshwater. Such settings are abundant throughout the APE and may have been more intensively utilized around higher order streams such as Marrowbone Creek.

The significance of potential prehistoric sites within the APE is expected to derive from their potential to yield information significant to local prehistory (Criterion D). It is not expected at this time that any potentially significant prehistoric archaeological resources have compelling associated values other than their information potential, and there are no indications that any potential sites would be eligible under Criteria A, B, or C.

6.2.2 Historic Archaeological Potential

Historic archaeological potential was largely driven by previously recorded cultural resources, historically mapped habitations, and environmental considerations such as slope and distance to water. Areas of low potential correspond to major built improvements such as roads, as well as areas of excessive slope and/or poor soils where historic settlement would be unlikely. Areas of moderate potential generally correspond to low-relief landforms with suitable soils but without a readily accessible surface supply of freshwater; while wells could have been excavated in these locations to obtain water, it is assumed that the labor and expense of well construction would have made these landforms of secondary preference for historic settlement in an area with so many freshwater streams.

Areas of high potential correspond to known cemeteries, some previously recorded above-ground cultural resources (other than cemeteries), and some historically mapped buildings within the APE. Historic cemeteries, typically appearing as private plots associated with a family farmstead, are common within the APE and its vicinity and are expected to exhibit high archaeological potential. Of those that were visited during the concurrent architectural history survey, none exhibited obvious signs of looting, ground disturbance, or other indications that their subsurface integrity had been compromised. It is therefore assumed that burial deposits, including human remains, casket hardware, and/or grave goods, likely survive intact.

Two previously recorded historic farmstead have been identified within or immediately adjacent to the APE and likely include archaeological deposits that extend within the APE. These resources are considered to have high archaeological potential because of their eighteenth and nineteenth century construction dates and limited evidence for significant ground disturbances that might have damaged or destroyed archaeological resources.

NRHP-listed Belleview (ca. 1782) represents a rare surviving example of an eighteenth-century farmstead in this area and may contain archaeological resources dating to a period that is otherwise poorly represented in Henry County's archaeological record. The resource's V-CRIS boundaries extend well beyond the standing structure to encompass a large portion of the surrounding land, and the area of high potential is considered coterminous with the boundaries' intersection with Alternative B.

The Price Home (ca. 1840), while determined not eligible for the NRHP due to its advanced deterioration, nonetheless represents a rare example of a nearby mid-nineteenth century farmstead. V-CRIS maps the ruins' location just beyond the southern boundary of all three build alternatives, but it is expected that archaeological deposits associated with its occupation extend into the APE of Alternatives A and B. The area of high archaeological potential associated with the Price Home is considered coterminous with the current property boundaries within the APE. This relatively large area of high potential is justifiable given that it encompasses the property between the site of the dwelling and the Price cemetery, located just beyond the northern boundary of Alternatives A and B. The relative positions of the house and cemetery suggest that the intervening space likely contains archaeological deposits attributable to the historic use and occupation of the property.

Historic mapping revealed a limited number of historic occupations within or immediately adjacent to the APE. Those that do not appear to have been subjected to significant ground disturbances are considered to have a high potential for associated archaeological deposits. These were derived from the georeferenced 1926 USGS map and surrounded by an approximately 200-ft (61-m) wide archaeological potential buffer to account for possible spatial inaccuracies in the historic mapping. The 1926 map was used as a basis given that no available, earlier map includes a meaningful level of detail regarding built improvements within the APE. This also represents the most recent historic map to depict the historic built environment with enough accuracy to allow for reasonable calculations of high archaeological potential. The 1944 USGS map, while historic, was drafted at a broader scale, making the locations of those buildings added to the APE between 1926 and 1944 far less reliable. Due to locational uncertainties, these building locations have been accorded moderate archaeological potential.

Historic site types potentially within the APE likely include artifact scatters, refuse piles, domestic occupations, farmsteads, and cemeteries (though some cemeteries are known to exist

within the APE as illustrated on Figure 4-1). This interpretation is drawn from historic settlement patterns, known archaeological sites and above-ground historic resources in the vicinity, and historic mapping/aerial photography. While there is some limited potential for industrial sites such as saw and grist mills based on historic maps that show some milling operations in the Marrowbone Creek watershed, there is no evidence to suggest such site types are located within the APE. Rather, available historic and cultural resources documentation strongly suggest that potential historic sites within the APE are much more likely to be associated with rural domestic/agricultural occupations.

The potential significance of historic archaeological resources within the APE is difficult to assess at this stage. Nevertheless, those historic sites possessing good archaeological integrity, spatial patterning, and significant archaeological features have the potential to yield information important to local history. Such sites are not likely to include artifact scatters and dump sites, but rather historic domestic sites/farmsteads where intensive occupation occurred on a regular basis for an extended period of time. Of particular interest would be sites dating to the nineteenth century and earlier, such as those that might exist in association with Belleview and the Price Home. These could provide critical insights into an otherwise poorly characterized period of local history. It is not expected at this time, however, that any potentially significant historic archaeological resources have compelling associated values other than their potential to yield information important to history (Criterion D); there are no indications that any potential sites would likely be eligible under Criteria A, B, or C.

6.3 ARCHAEOLOGICAL POTENTIAL OF EACH BUILD ALTERNATIVE

The archaeological potential of Alternatives A, B, and C differs in terms of the distribution of low, moderate, and high potential areas, though the kinds of archaeological resources that may be present are very similar among the alternatives (Table 6-1). The archaeological potential of each alternative is presented below, including the kinds of resources that may be present and those which could be significant.

Table 6-1. Archaeological Potential Acreages per Build Alternative

Alternative	Archaeological Potential Acreage						Totals
	High		Moderate		Low		
A	268.4	*46.86%*	144.8	*25.28%*	159.6	*27.86%*	**572.8**
B	274.2	*48.89%*	178.1	*31.75%*	108.6	*19.36%*	**560.9**
C	163.4	*46.08%*	89.6	*25.27%*	101.6	*28.65%*	**354.6**
A, B, C	510.2	*47.75%*	331.4	*31.02%*	226.8	*21.23%*	**1,068.4***

*Note: combined archaeological potential acreage (1,068.4) eliminates overlap between the alternatives, so is less than the total alternative acreages (1,488.3)

6.3.1 Alternative A

Alternative A includes approximately 160 ac (28 percent of Alternative A) considered to have low archaeological potential. These areas are dispersed throughout Alternative A, typically corresponding to previously disturbed areas and areas exhibiting excessive slope and/or distance to reliable surface water. Prehistoric and historic archaeological resources are not expected in these areas, but their potential existence cannot be categorically excluded from consideration. Areas of moderate potential are somewhat less common, inclusive of approximately 145 ac (25 percent of Alternative A) representing landforms that prehistoric and/or historic populations may have selected for short- and/or long-term occupations.

Areas of high archaeological potential are much more common in Alternative A, encompassing approximately 268 ac (47 percent of Alternative A). At the southern end of the APE, a large area of high potential exists southeast of Greensboro Road where terrain and hydrological conditions are conducive to intensive prehistoric activities. Historic archaeological deposits associated with the Price Home (044-5146) and its broader property are also expected in this location, as are archaeological deposits affiliated with the unnamed cemetery northeast of J.B. Dalton Road.

To the north, areas of high archaeological potential exist along the low-relief terrain in the vicinity of Marrowbone Creek and its tributaries where prehistoric archaeological resources in particular are expected. An area of high potential also exists in the location of the Hawkins-Ramey Cemetery along Soapstone Road, west of its intersection with Joseph Martin Highway. At the far northern end of Alternative A, small areas of high potential exist in the vicinity of Little Marrowbone Creek. Not only do the topographic and hydrological conditions suggest an ideal setting for intensive prehistoric occupation, a nonextant historic dwelling is depicted in this location on the 1926 USGS map.

The types of archaeological resources that may be present within Alternative A include prehistoric and historic archaeological site types. Short-term prehistoric encampments are most likely to occur on low-relief landforms within the vicinity of reliable surface water; some short-term encampments may be present at father distances from freshwater sources, but this setting is less commonly reported in the local archaeological record than settings closer to water. Larger base camp/village sites may be present as well, and these are most likely to be present on low-relief terraces or high floodplains adjacent to significant waterbodies such as Marrowbone Creek and larger tributaries such as Little Marrowbone Creek and Stillhouse Run.

Historic site types may include trash dumps, artifact scatters, domestic/agricultural occupations, and cemeteries. Trash dumps and artifacts scatters could occur anywhere within the vicinity of a historic farmstead, presumably on any low-relief landform suitable for farming and residential use. Historic mapping and previously recorded cultural resource files indicate some locations of historic dwellings/farmsteads where archaeological deposits may be expected, including the Price Home and an unidentified dwelling within the north end of Alternative A. Two cemeteries are known to exist near the north and south ends of Alternative A and presumably contain archaeological resources associated with burial customs and human remains. Since the use of private family cemeteries was relatively common in this area, additional cemeteries may be present on virtually any historic farmstead property that Alternative A crosses.

Potentially significant historic archaeological sites within Alternative A are likely limited to historic farmsteads bearing intact archaeological contexts/features. These may include that which was mapped at the north end of Alternative A on the 1926 USGS map, deposits associated with the ca. 1840 Price Home (044-5146) near the south end of the alternative, as well as any farmstead sites for which there is no current or historic documentation. Artifact scatters and isolated trash dumps typically lack good research potential, and it is not expected that the historic cemeteries would be deemed significant in terms of NRHP eligibility. Because of special criteria considerations associated with cemeteries, it is unlikely that small family plots will be eligible for listing under any of the NRHP criteria. However, these sites may be deemed significant by local populations and/or descendant communities who value the cemeteries for reasons other than those that would satisfy NRHP significance.

6.3.2 Alternative B

Alternative B includes approximately 109 ac (19 percent of Alternative B) considered to have low archaeological potential. These areas are predominantly confined to the southern end of the APE in the vicinity of Greensboro Road and some areas of steep terrain in the central and northern parts of the APE. Areas of moderate potential are much more common, encompassing approximately 178 ac (32 percent of Alternative B). As with Alternative A, these areas generally correspond to low-relief landforms within 656 to 1,640 ft (200 to 500 m) of a reliable surface water source that prehistoric and/or historic populations may have intensively occupied.

Areas of high potential within Alternative B are much more common, encompassing approximately 274 ac (49 percent of Alternative B) inclusive of those landforms where prehistoric and/or historic archaeological resources are expected. At the southern end of the APE, the area of high potential southeast of Greensboro Road and described for Alternative A applies to Alternative B given that the two alternatives overlap in this location.

Farther north, areas of high archaeological potential exist along the low-relief terrain in the vicinity of Marrowbone Creek and its tributaries where prehistoric archaeological resources in particular are expected. Where Alternative B passes through previously recorded above-ground resource Belleview (044-0002), there is a high potential for historic archaeological resources associated with the extant, late eighteenth-century farmstead and the unnamed cemetery immediately to the north. At the far northern end of Alternative B, areas of high archaeological potential exist within the vicinity of Little Marrowbone Creek where intensive prehistoric occupations may be expected.

The potential prehistoric and historic site types expected for Alternative B are generally the same as those expected for Alternative A. Short- and long-term prehistoric occupations are likely to be found within a reasonable distance of reliable water, with larger and more permanent settlements likely to occur along the terraces/floodplains of Alternative B's principal drainages (Marrowbone Creek and the aforementioned tributaries).

The same historic site types may be expected for Alternative B as well. The Price Home and Belleview are the only known historic occupations to intersect Alternative B, though the documentary record is far from complete. Potential archaeological resources associated with these farmsteads may represent some of the most significant historic deposits within the APE, particularly any associated with Belleview given its early and underrepresented period of development. However, those associated with the Price Home may also provide insights into a poorly known period of local historic development. Three historic cemeteries are also located within Alternative B and presumably include archaeological deposits associated with mortuary practices and human remains. However, it is unlikely that these sites would be considered significant in terms of NRHP eligibility, given that they are unlikely to meet the special criteria considerations for historic cemeteries. Even if these sites lack NRHP significance, local populations and/or descendent communities may consider them to be significant for reasons other than those that would satisfy NRHP eligibility.

6.3.3 Alternative C

Approximately 102 ac (29 percent of Alternative C) of Alternative C are considered to have low archaeological potential. As with Alternatives A and B, low potential areas typically correspond with modern disturbances, such as road construction, as well as those locations that are

excessively steep or distant from reliable sources of freshwater. Areas of moderate potential are somewhat less common, representing approximately 90 ac (25 percent of Alternative C) and correspond to those locations meeting the same criteria described for Alternatives A and B above.

Areas of high potential within Alternative C include those landforms where prehistoric and/or historic archaeological resources are expected. These areas are much more common, representing approximately 163 ac (46 percent of Alternative C). At the southern end of the APE, this includes a portion of the high potential area southeast of Greensboro Road and described for Alternatives A and B above.

To the north, areas of high potential correspond to low-relief landforms adjacent to reliable freshwater sources, historically mapped farmsteads/dwellings, and at least one cemetery. Prehistoric resources are expected virtually anywhere that topographic and hydrological conditions would have been suitable for short- and/or long-term occupations. Historic occupations are documented on the 1926 USGS map in at least three places north of Greensboro Road. Two dwellings are illustrated west of what is now Lee Ford Camp Road and, while no longer extant, do not appear to have been subjected to significant ground disturbances. While this map shows a third dwelling at the far northeastern extent of Alternative C, this area has since been developed as part of the William F. Stone Highway and is not expected to exhibit intact historic archaeological resources; areas of moderate potential flank the highway and site of the former dwelling given the potential for peripheral archaeological deposits that may have been spared destruction when the highway was built. A single known, unnamed cemetery is also present within Alternative C. Located north of White House Road, this cemetery is considered to have high archaeological potential given that archaeological deposits associated with mortuary activities and human remains are very likely to be present.

The potential archaeological site types within Alternative C are very similar to those that may exist within Alternatives A and B. Short- and long-term prehistoric occupations may be present, and the likelihood for their existence increases with proximity to water and relatively level adjacent landforms. Any intact prehistoric site may represent a potentially significant resource if it has the potential to yield important information on local prehistory. Such sites may include temporary or more permanent habitations and are most likely to occur along the major drainages that cross Alternative C, including Marrowbone Creek and its larger tributaries.

Historic sites, from small scatters/dumps to cemeteries and farmsteads, may also be present within Alternative C. Small scatters/dumps may occur anywhere within the broad vicinity of a historic domestic occupation. The same is generally true of family cemeteries. While several known cemeteries were developed within only a few hundred feet of their associated farmsteads, others, such as the Price Cemetery, are located more than a quarter-mile from their associated dwellings. Intact archaeological sites associated with historic farmsteads are expected in the vicinity of the Price Home and the two dwellings mapped west of Lee Ford Camp Road on the 1926 USGS map. Of the historic site types anticipated for Alternative C, farmsteads represent those most likely to contain potentially significant archaeological deposits given the higher potential for archaeological features and artifact patterning relative to the other site types. As noted under Alternatives A and B above, cemeteries within Alternative C are not likely to represent significant sites in terms of NRHP eligibility since it is unlikely they will meet the special criteria considerations for historic cemeteries. However, as elsewhere in the APE, cemeteries within Alternative C may be considered significant by local populations and/or

descendant communities for reasons other than those required to satisfy the NRHP criteria of significance.

6.4 SUMMARY AND RECOMMENDATIONS

VDOT contracted AECOM to conduct a Phase Ia archeological assessment of the APE in support of an EIS associated with proposed transportation improvements along the US Route 220 corridor between the US Route 58/220 Bypass south of Martinsville and the North Carolina state line in Henry County, Virginia. The assessment included a review of environmental data; previously recorded archaeological sites, surveys, and cemeteries; culture histories; and historic maps and aerials photographs to characterize the archaeological potential of Alternatives A, B, and C in advance of any ground disturbance.

As a result of these efforts, the archaeological potential ranges from low to high throughout the APE. Areas of low potential account for 226.8 ac (21 percent) of the APE and generally correspond to areas of prior disturbance and steep terrain. Areas of moderate potential account for 331.4 ac (31 percent) of the APE, inclusive of low-relief terrain between 656 and 1,640 ft (200 and 500 m) from water and/or those areas suitable for, but lacking direct evidence of, historic agrarian settlement. Lastly, areas of high potential account for 510.2 ac (48 percent) of the APE and correspond to low-relief areas within less than 656 ft (200 m) of a reliable water source and/or areas known to have contained historic occupations/cemeteries likely to include archaeological deposits.

As shown in Table 6-1, Alternative A contains 268.4 ac of high, 144.8 ac of moderate, and 159.6 ac of low archaeological potential; Alternative B contains 274.2 ac of high, 178.1 ac of moderate, and 108.6 ac of low archaeological potential; and Alternative C contains 163.4 ac of high, 89.6 ac of moderate, and 101.6 ac of low archaeological potential. Note that the collective alternative acreage (1,488.3) is greater than the APE acreage (1,068.4) due to 419.9 ac of overlap among the alternatives.

The proportion of high archaeological potential is very similar between the three alternatives, representing approximately 47 percent (268.4 ac) of Alternative A, 49 percent (274.2 ac) of Alternative B, and 46 percent (163.4 ac) of Alternative C. The same is largely true of moderate potential areas, representing approximately 25 percent (144.8 ac) of Alternative A, 32 percent (178.1 ac) of Alternative B, and 25 percent (89.6 ac) of Alternative C. Similarities in the distribution of moderate to high archaeological potential are attributed to the alternatives' close proximity to one another. Each encompasses a similar distribution of the environmental factors that may have attracted prehistoric occupation, and each includes a similar distribution of known or potential historic archaeological sites since each was subjected to the same trends of historic settlement.

The kinds of archaeological resources expected within the APE include prehistoric short- and long-term habitations, historic scatters, historic cemeteries, and historic domestic/agricultural sites (farmsteads). Each resource type is expected to be present within any one of the build alternatives.

Since no archaeological sites have been registered within any of the alternatives, it is unknown if significant archaeological resources are present. Potentially significant prehistoric resources may include virtually any intact, intensively occupied site exhibiting meaningful artifact patterning, archaeological features, and/or discrete activity areas. Previously recorded prehistoric sites in the

vicinity of the APE suggest there is high potential for intact base camp/village sites on low-relief landforms adjacent to significant waterbodies such as Marrowbone Creek and its larger tributaries. Since each alternative includes a relatively even distribution of such landforms, each alternative has a similar potential to include potentially significant prehistoric sites.

Potentially significant historic sites are likely restricted to intact farmstead deposits exhibiting meaningful artifact patterns and archaeological features representative of sustained, intensive occupation. Smaller artifact scatters and isolated historic dump sites, while likely common throughout the APE, generally would not be expected to contain a similar degree of information potential. Historic family cemeteries, though known to exist within each alternative, are not generally considered significant under NRHP criteria given that most will not meet the special criteria considerations required of historic cemeteries.

Potentially significant farmstead sites are expected in each of the alternatives, though it should be noted that Alternative B may include archaeological deposits associated with two of the oldest farmsteads registered with DHR in the immediate vicinity. Alternative B is the only alternative to pass through Belleview (044-0002), the sole, registered example of a surviving eighteenth-century farmstead nearby and the only nearby farmstead listed in the NRHP. Archaeological deposits associated with the early settlement of Henry County may be present and could potentially yield significant information on this otherwise poorly represented component of local history. Additionally, and along with Alternatives A and C, Alternative B likely encompasses archaeological deposits associated with the ca. 1840 Price Home (044-5146), located just beyond the APE's boundaries near its southern end. While not as old as Belleview, potential archaeological deposits affiliated with this farmstead may have the potential to yield information important to local history.

Whether prehistoric or historic, potentially significant sites likely would derive their significance from their potential to yield information important to prehistory or history. It is not expected that archaeological sites are present that would derive their significance from associated values other than their information potential.

Phase I archeological investigation is recommended for any areas of potential ground disturbance depicted as having moderate to high archeological potential on Figure 6-13 in Appendix B. Individually, this would include 413.2 ac of Alternative A, 452.3 ac of Alternative B, and 253 ac of Alternative C. Such investigations should include, at a minimum, pedestrian inspection and shovel testing consistent with DHR standards to identify the nature, extent, and potential significance of archaeological resources that may be impacted by this undertaking.

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Appendix A:
Qualifications of Investigators

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Heather Crowl, MA, RPA has 25 years of professional experience in prehistoric and historic archaeology, particularly in the Mid-Atlantic and East Coast regions of the United States. A majority of this experience is in cultural resources management for private, state, and federal compliance projects. She is qualified under 36 CFR 61 (Professional Qualification Standards) for historic and prehistoric archaeology and is a registered professional archaeologist. Ms. Crowl has extensive experience in the design, management, and technical execution of historical and archaeological investigations. As a principal archaeologist, Ms. Crowl oversees project management, directs archaeological field survey, evaluation, and excavation, and conducts cemetery delineations, artifact analysis, report writing, graphic preparation, and archival research. Ms. Crowl received her BA in Anthropology from the College of William and Mary in 1994 and her MA in Anthropology from American University in 2002.

Peter Regan, MA, RPA is a Registered Professional Archaeologist (RPA) with over 11 years of experience in cultural resources management and exceeds the Secretary of the Interior's professional qualifications for archaeology and history. He specializes in historic site analyses, biological archaeology, historic research, and developing public outreach platforms for archaeological sites and other places of cultural interest. Mr. Regan has worked throughout the United States for numerous federal, state, municipal, and private clients on a wide variety of sites under all phases of excavation. In addition to extensive compliance-driven experience, Mr. Regan has served as a research consultant for archaeology and cultural outreach projects and is a board member of Frederick, Maryland's Historic Preservation Commission. As a Senior Archaeologist and Senior Historian with AECOM, he directs field projects, generates high quality technical documents, and contributes to numerous aspects of project execution, data analysis, and interagency coordination.

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Appendix B:
Report Figures

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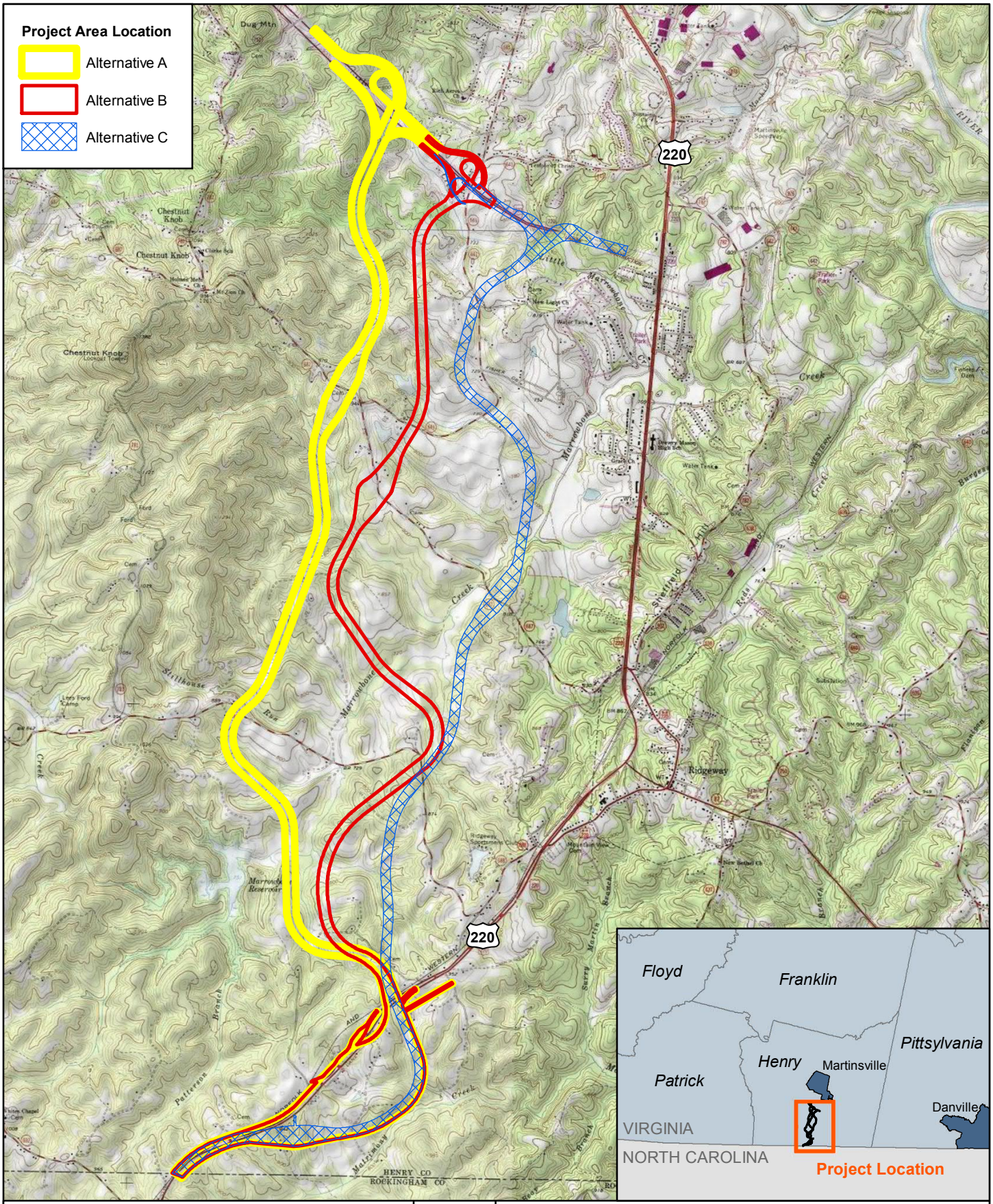

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SOURCE	Esri 2019; VGIN 2019
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TITLE

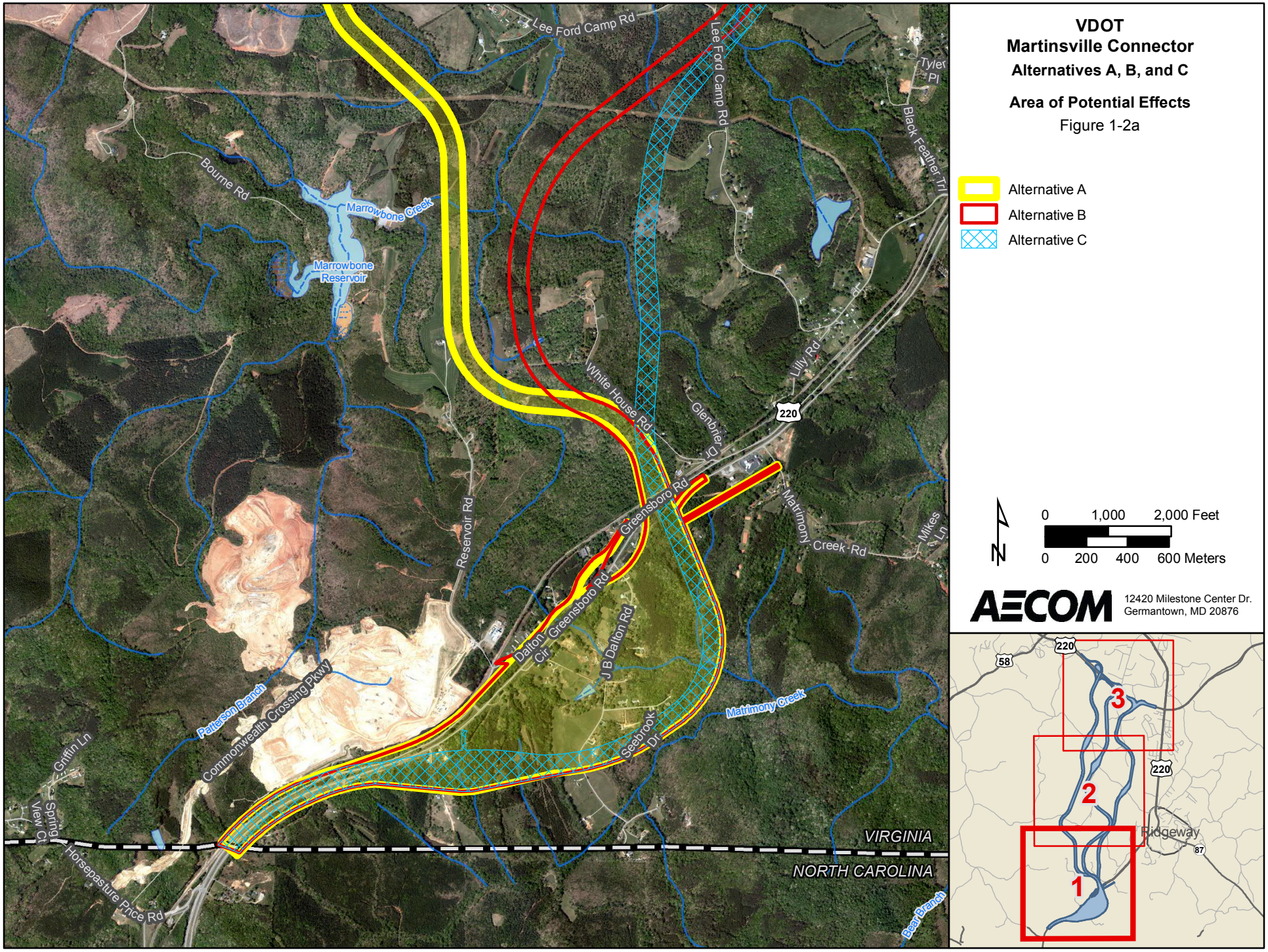
Project Area Location

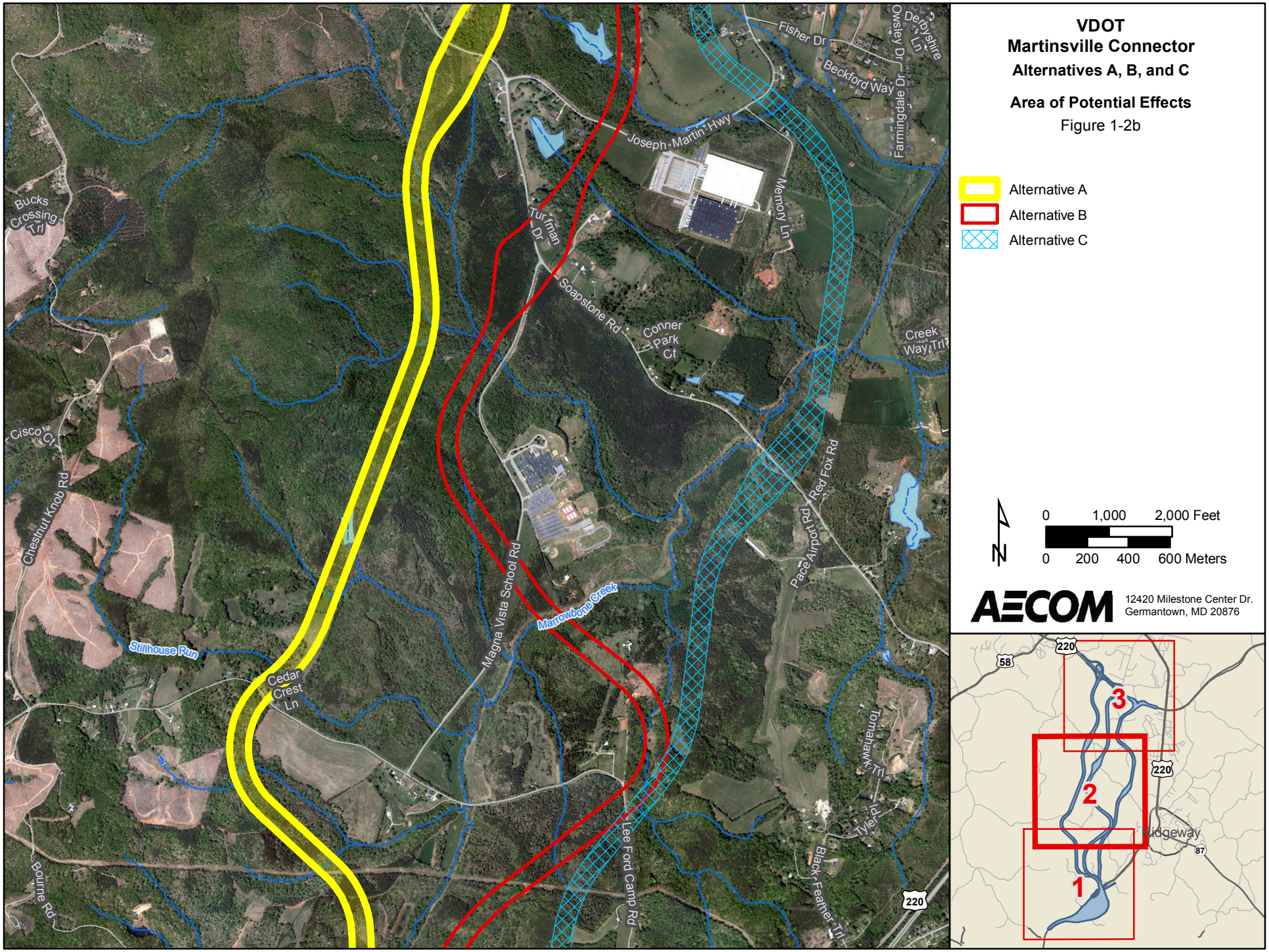
AECOM

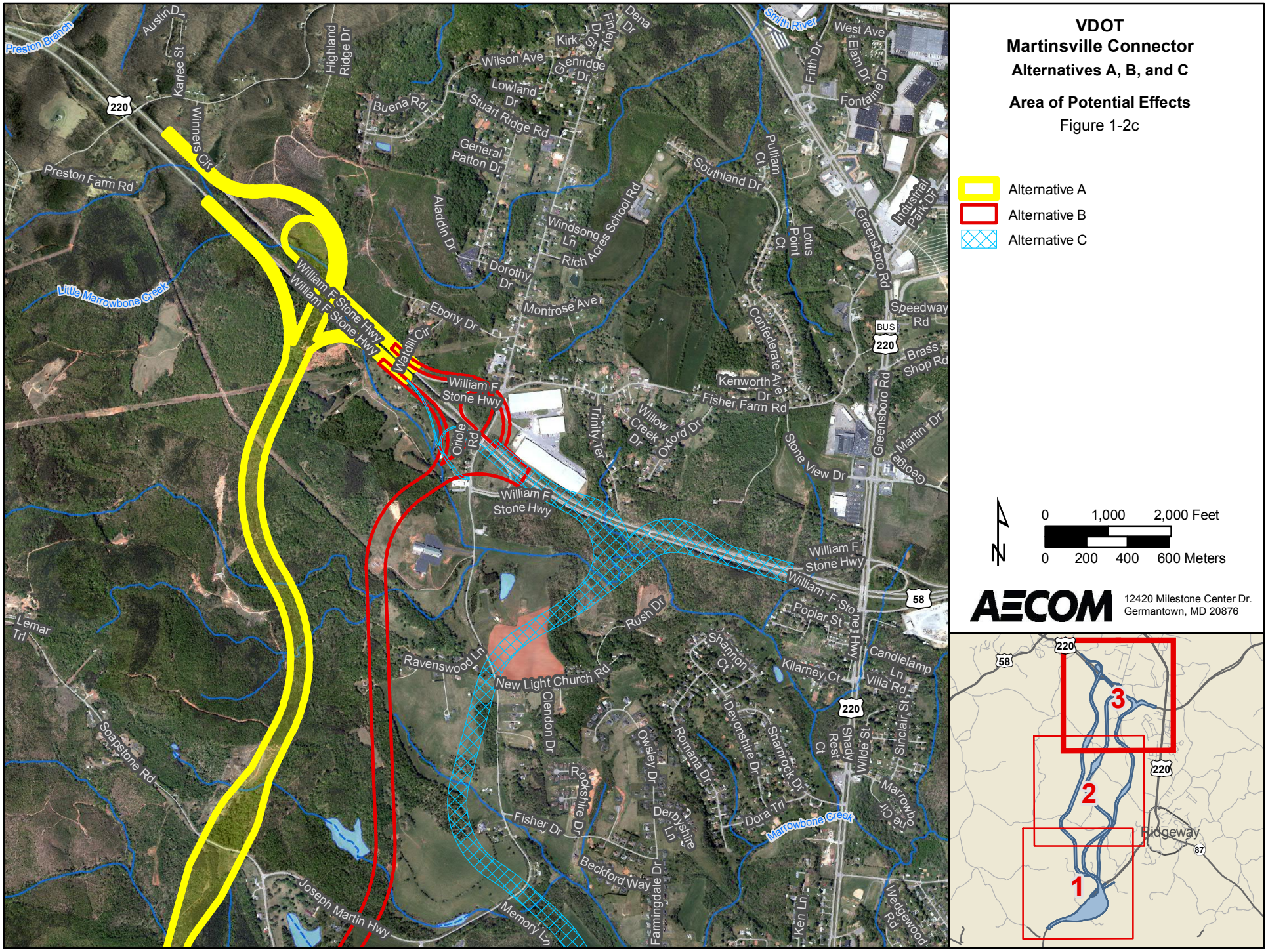
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60606055

FIGURE 1-1


VDOT
Martinsville Connector
Alternatives A, B, and C
Area of Potential Effects
Figure 1-2a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Lee Ford Camp Rd
Tyler Pl
Black Feather Trl
Bourne Rd
Marrowbone Creek
Marrowbone Reservoir
White House Rd
Lilly Rd
Glenbrier Dr
220
Reservoir Rd
Greensboro Rd
Matrimony Creek Rd
Mikes Ln
Dalton Greensboro Rd
Dalton Greensboro Cir
J B Dalton Rd
Commonwealth Crossing Pkwy
Patterson Branch
Matrimony Creek
Seebrook Dr
Griffin Ln
Spring View Ct
Horsepasture Price Rd
VIRGINIA
NORTH CAROLINA
Beaver Branch
58
Ridgeway
87
1
2
3


VDOT
Martinsville Connector
Alternatives A, B, and C
Area of Potential Effects
Figure 1-2b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Joseph Martin Hwy
Fisher Dr
Beckford Way
Derbyshire Ln
Owsley Dr
Farmingdale Dr
Memory Ln
Turfman Dr
Soapstone Rd
Conner Park Ct
Creek Way Trl
Bucks Crossing Trl
Cisco Ct
Chestnut Knob Rd
Red Fox Rd
Pace Airport Rd
Magna Vista School Rd
Marrowbone Creek
Stillhouse Run
Cedar Crest Ln
Tomahawk Trl
Tyler Pl
Lee Ford Camp Rd
Black Feather Trl
Bourne Rd
220
58
Ridgeway
87
1
2
3


VDOT
Martinsville Connector
Alternatives A, B, and C
Area of Potential Effects
Figure 1-2c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Preston Branch
Austin Dr
Karlee St
Highland Ridge Dr
Wilson Ave
Kirk St
Finley Dr
Dena Dr
Glenridge Dr
Smith River
West Ave
Elam Dr
Frith Dr
Fontaine Dr
Lowland Dr
Buena Rd
Stuart Ridge Rd
General Patton Dr
Winners Cir
Preston Farm Rd
Southland Dr
Pulliam Ct
Industrial Park Dr
Greensboro Rd
Point Ct
Lotus
Aladdin Dr
Windsong Ln
Rich Acres School Rd
Dorothy Dr
Little Marrowbone Creek
William F Stone Hwy
Ebony Dr
Montrose Ave
Waldill Cir
Confederate Ave
Speedway Rd
BUS
Brass Shop Rd
Kenworth Dr
Fisher Farm Rd
Trinity Ter
Willow Creek Dr
Oxford Dr
Oriole Rd
Martin Dr
George
Stone View Dr
Rush Dr
Poplar St
Candlelamp Ln
Villa Rd
Kilarney Ct
Shannon Ct
Ravenswood Ln
New Light Church Rd
Clendon Dr
Lemar Trl
Soapstone Rd
Devonshire Dr
Shamrock Dr
Sinclair St
Wade St
Shady Rest Ct
Owsley Dr
Romana Dr
Rockshire Dr
Derbyshire Ln
Fisher Dr
Dora Trl
Marrowbone Creek
Marrowbone Cir
Beckford Way
Farmingdale Dr
Joseph Martin Hwy
Memory Ln
Ken Ln
Wedgewood Rd
Ridgeway
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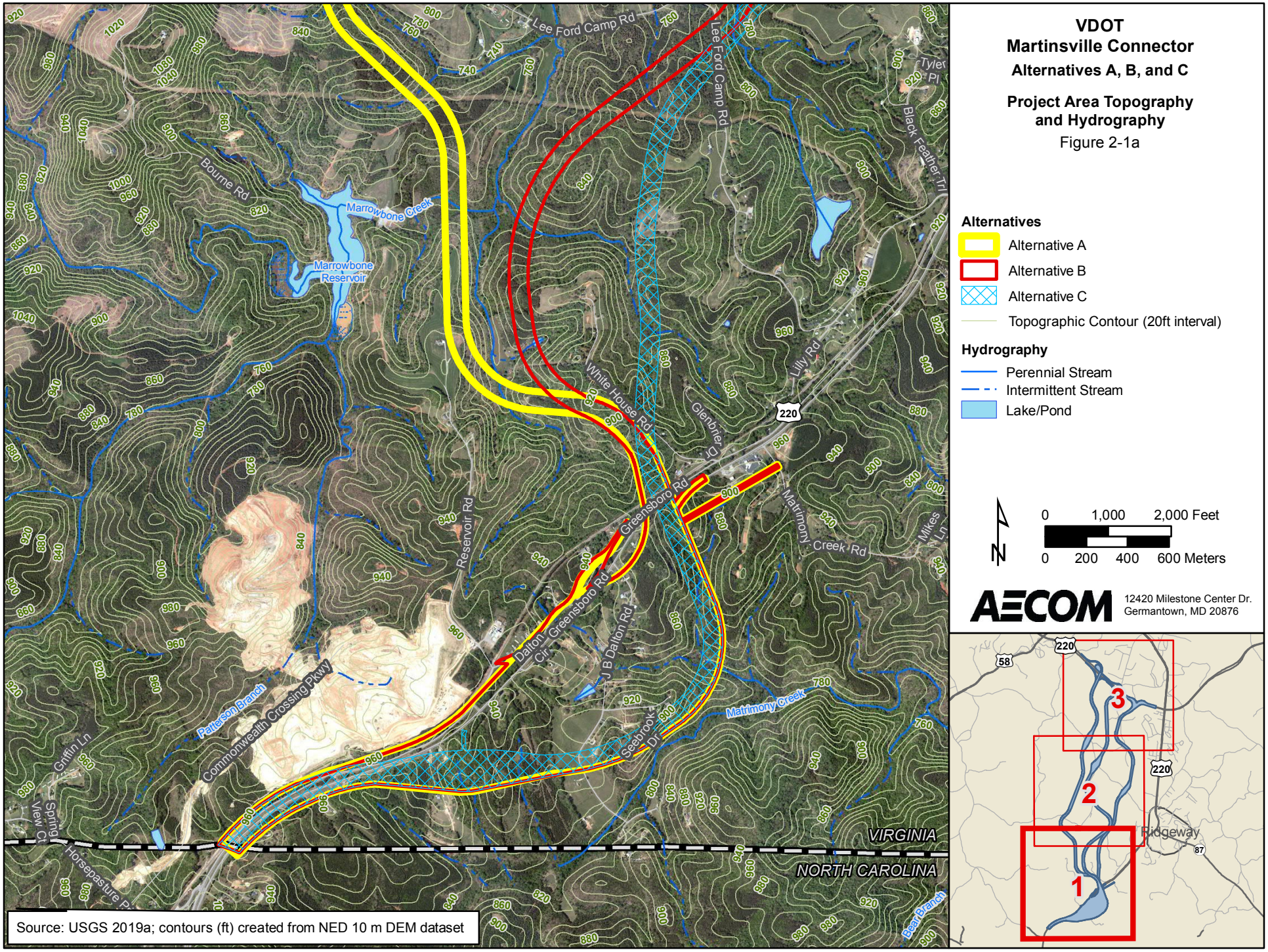
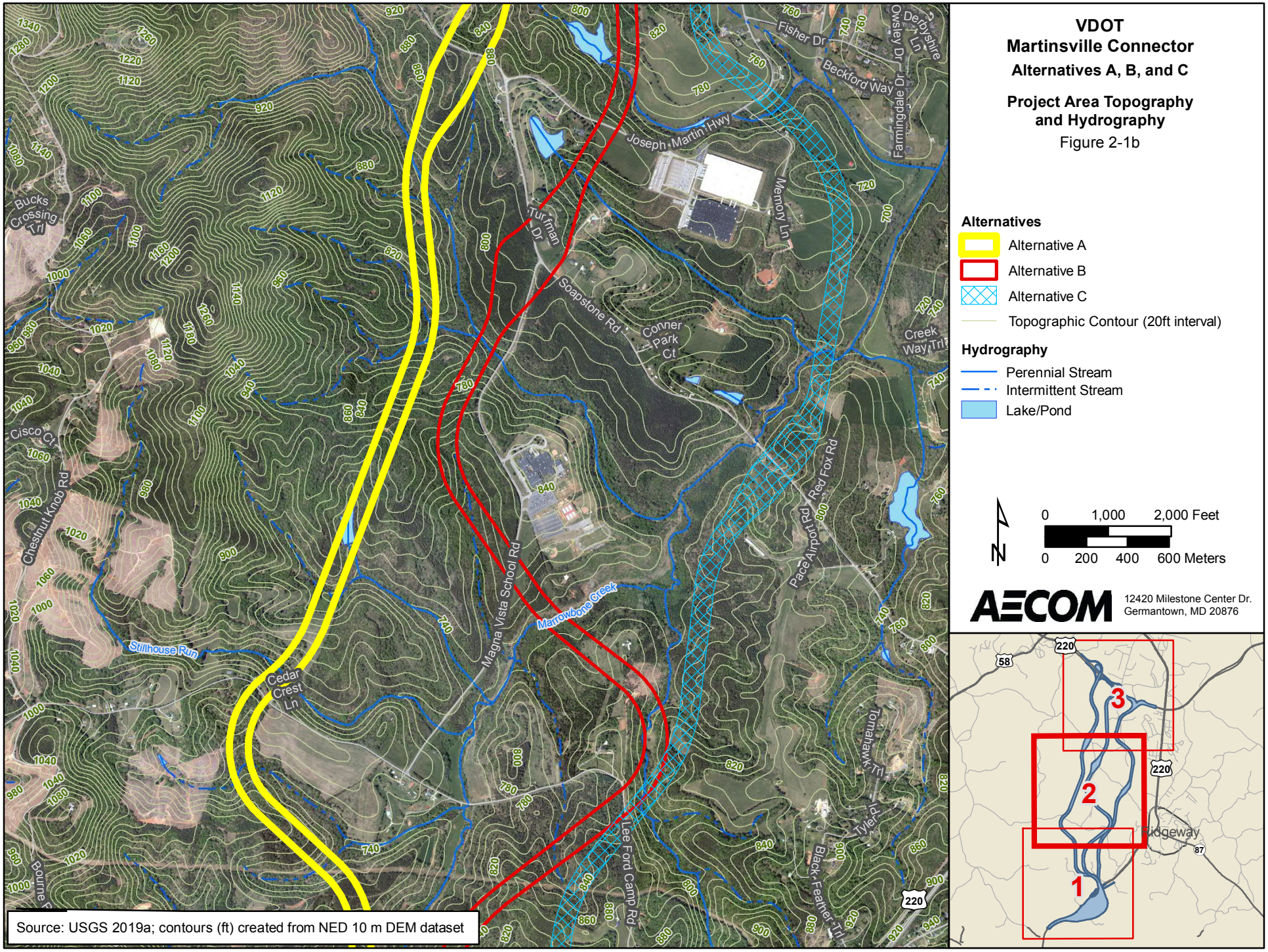

VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Topography and Hydrography
Figure 2-1a
Alternatives
Alternative A
Alternative B
Alternative C
Topographic Contour (20ft interval)
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Lee Ford Camp Rd
Bourne Rd
Marrowbone Creek
Marrowbone Reservoir
White House Rd
Glenbrier Dr
Lilly Rd
Greensboro Rd
Reservoir Rd
Matrimony Creek Rd
Dalton Greensboro Rd Cir
J B Dalton Rd
Commonwealth Crossing Pkwy
Patterson Branch
Griffin Ln
Seebrook Dr
Matrimony Creek
Tyler Pl
Black Feather Trl
Mikes Ln
Bear Branch
Horsepasture Rd
VIRGINIA
NORTH CAROLINA
220
58
87
Ridgeway
1
2
3
Source: USGS 2019a; contours (ft) created from NED 10 m DEM dataset


VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Topography and Hydrography
Figure 2-1b
Alternatives
Alternative A
Alternative B
Alternative C
Topographic Contour (20ft interval)
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a; contours (ft) created from NED 10 m DEM dataset
Joseph Martin Hwy
Fisher Dr
Beckford Way
Farmingdale Dr
Derbyshire Ln
Memory Ln
Turman Dr
Soapstone Rd
Conner Park Ct
Creek Way Trl
Red Fox Rd
Pace Airport Rd
Magna Vista School Rd
Marrowbone Creek
Stillhouse Run
Cedar Crest Ln
Chestnut Knob Rd
Cisco Ct
Bucks Crossing Trl
Lee Ford Camp Rd
Black Feather Trl
Tyler Rd
Tomahawk Trl
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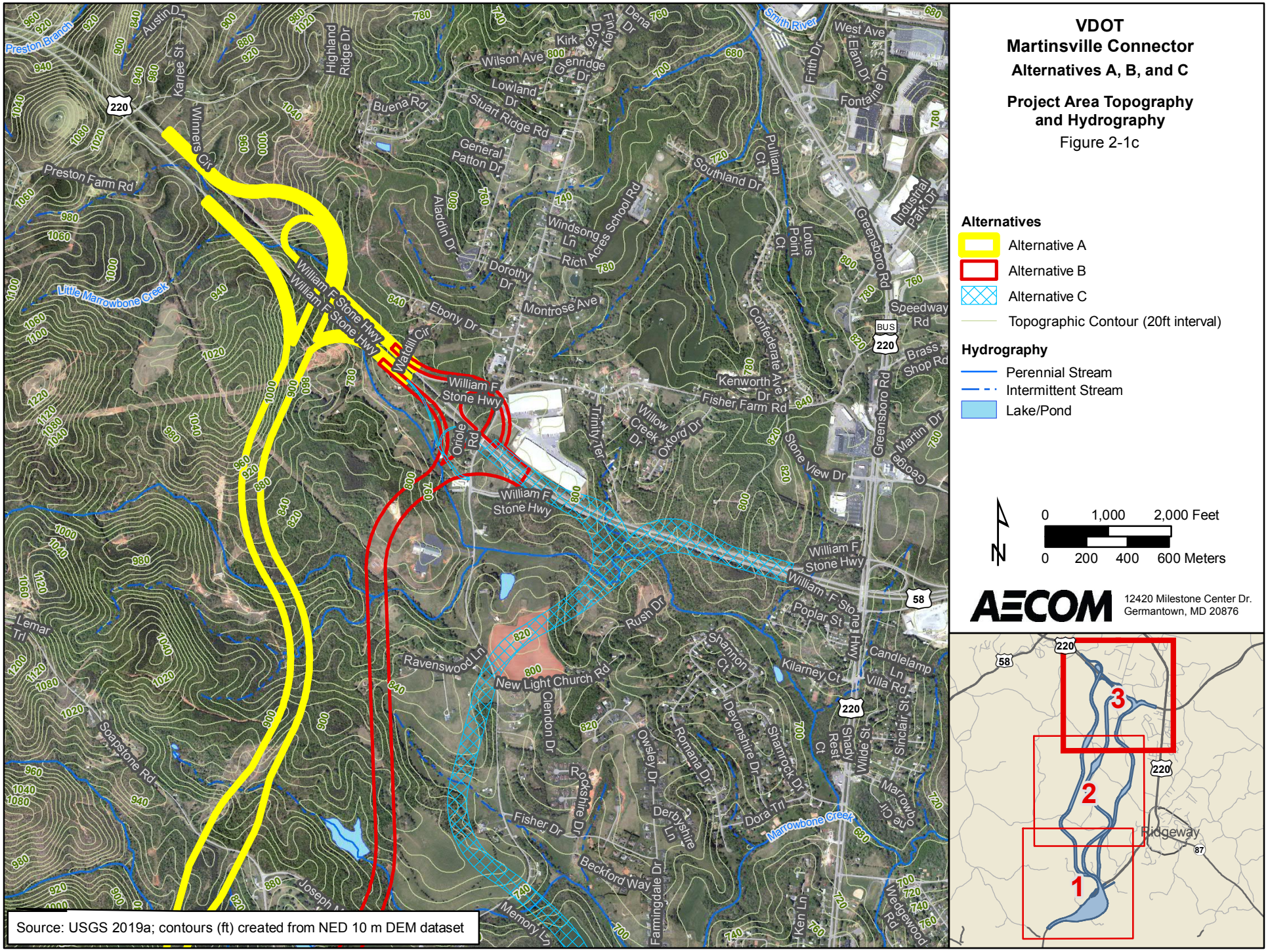
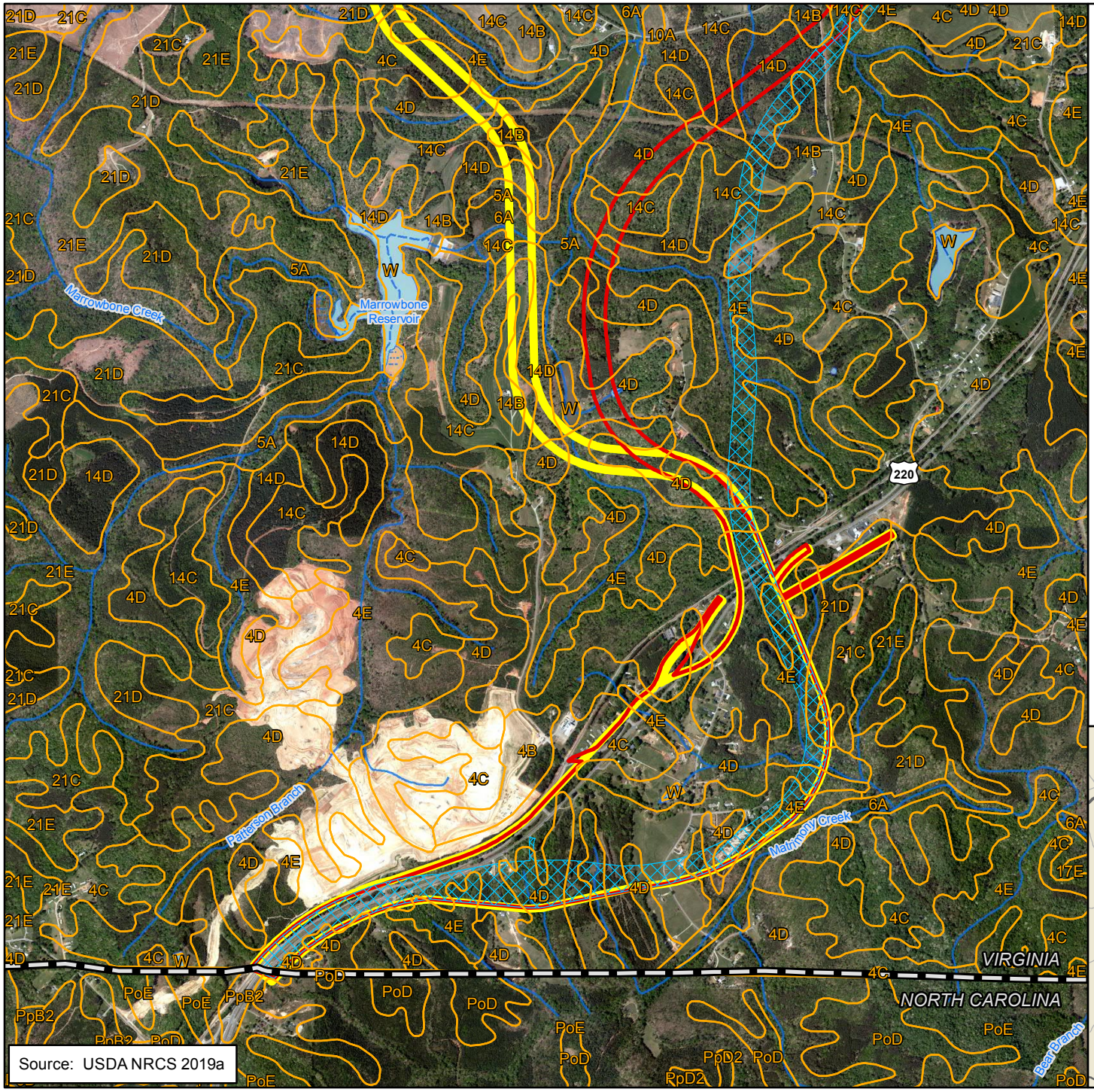

VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Topography and Hydrography
Figure 2-1c
Alternatives
Alternative A
Alternative B
Alternative C
Topographic Contour (20ft interval)
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a; contours (ft) created from NED 10 m DEM dataset
Preston Branch
Little Marrowbone Creek
Marrowbone Creek
Smith River
William F Stone Hwy
New Light Church Rd
Ridgeway
1
2
3



VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Soils
Figure 2-2a

Alternative A
Alternative B
Alternative C
Soil Map Unit Boundary

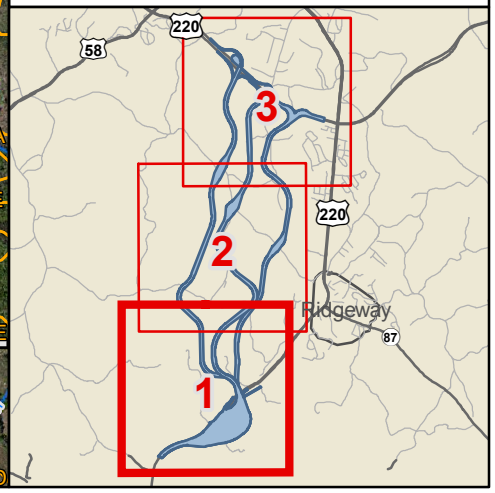
Soil Types Intersecting the APE	
Symbol	**Name**
4B	Clifford sandy loam, 2-7% slopes
4C	Clifford sandy loam, 7-15% slopes
4D	Clifford sandy loam, 15-25% slopes
4E	Clifford sandy loam, 25-45% slopes
5A	Codorus loam, 0-2% slopes, frequently flooded
6A	Colvard fine sandy loam, 0-2% slopes, occasionally flooded
14B	Minnieville loam, 2-7% slopes
14C	Minnieville loam, 7-15% slopes
14D	Minnieville loam, 15-25% slopes
16B	Orenda sandy loam, 2-7% slopes
17C	Orenda-Spriggs complex, 7-15% slopes
17D	Orenda-Spriggs complex, 15-25% slopes
17E	Orenda-Spriggs complex, 25-45% slopes
19	Udorthents-Urban land complex, 2-15% slopes
20	Udorthents, loamy
21C	Woolwine-Clifford complex, 7-15% slopes
21D	Woolwine-Clifford complex, 15-25% slopes
21E	Woolwine-Clifford complex, 25-45% slopes
W	Water

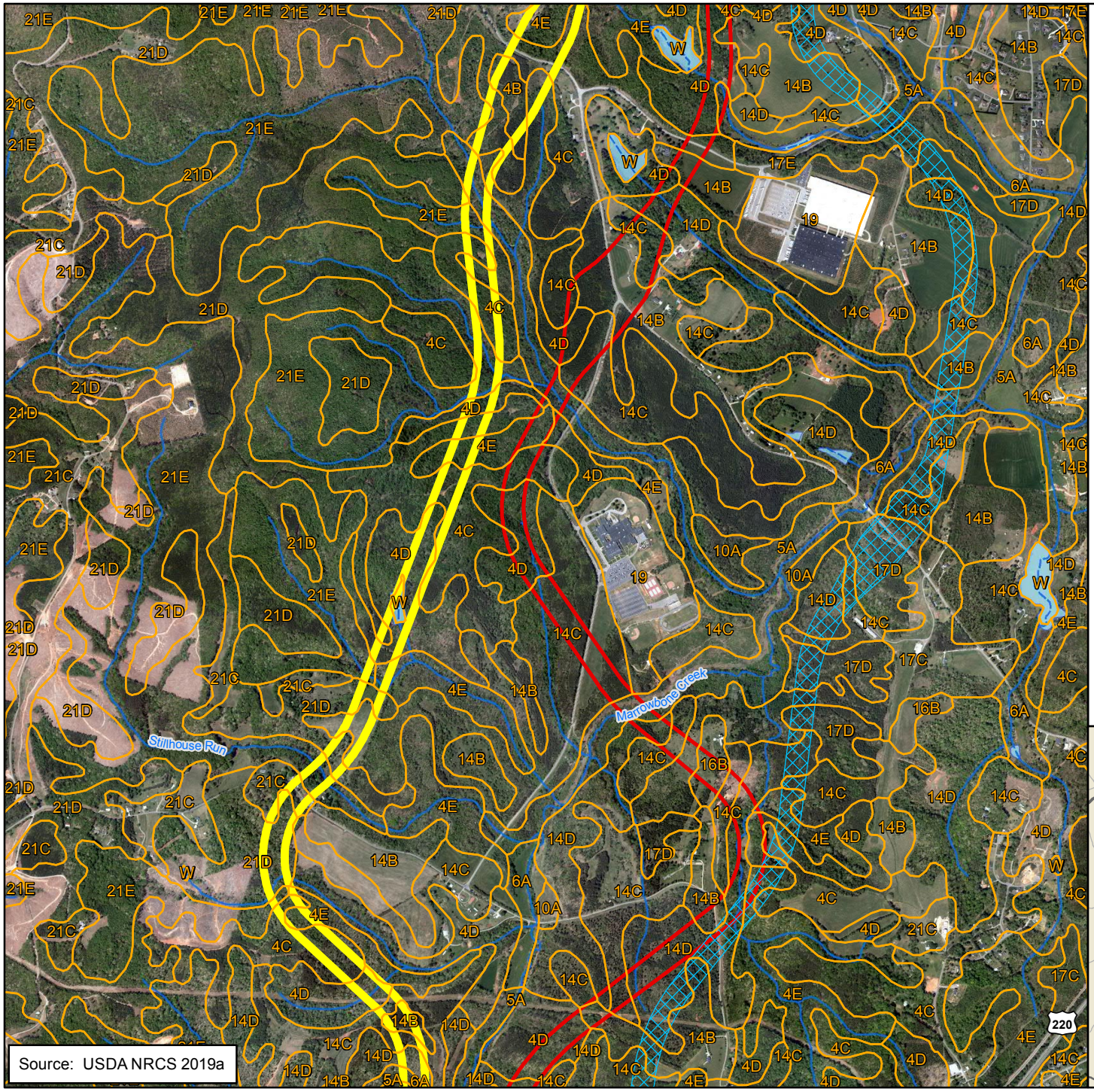
N

0 1,000 2,000 Feet

0 200 400 600 Meters

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876





VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Soils
Figure 2-2b

Alternative A
Alternative B
Alternative C
Soil Map Unit Boundary

Soil Types Intersecting the APE	
Symbol	**Name**
4B	Clifford sandy loam, 2-7% slopes
4C	Clifford sandy loam, 7-15% slopes
4D	Clifford sandy loam, 15-25% slopes
4E	Clifford sandy loam, 25-45% slopes
5A	Codorus loam, 0-2% slopes, frequently flooded
6A	Colvard fine sandy loam, 0-2% slopes, occasionally flooded
14B	Minnieville loam, 2-7% slopes
14C	Minnieville loam, 7-15% slopes
14D	Minnieville loam, 15-25% slopes
16B	Orenda sandy loam, 2-7% slopes
17C	Orenda-Spriggs complex, 7-15% slopes
17D	Orenda-Spriggs complex, 15-25% slopes
17E	Orenda-Spriggs complex, 25-45% slopes
19	Udorthents-Urban land complex, 2-15% slopes
20	Udorthents, loamy
21C	Woolwine-Clifford complex, 7-15% slopes
21D	Woolwine-Clifford complex, 15-25% slopes
21E	Woolwine-Clifford complex, 25-45% slopes
W	Water

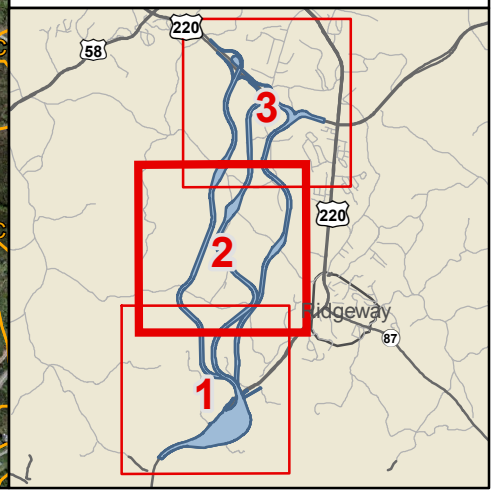
N

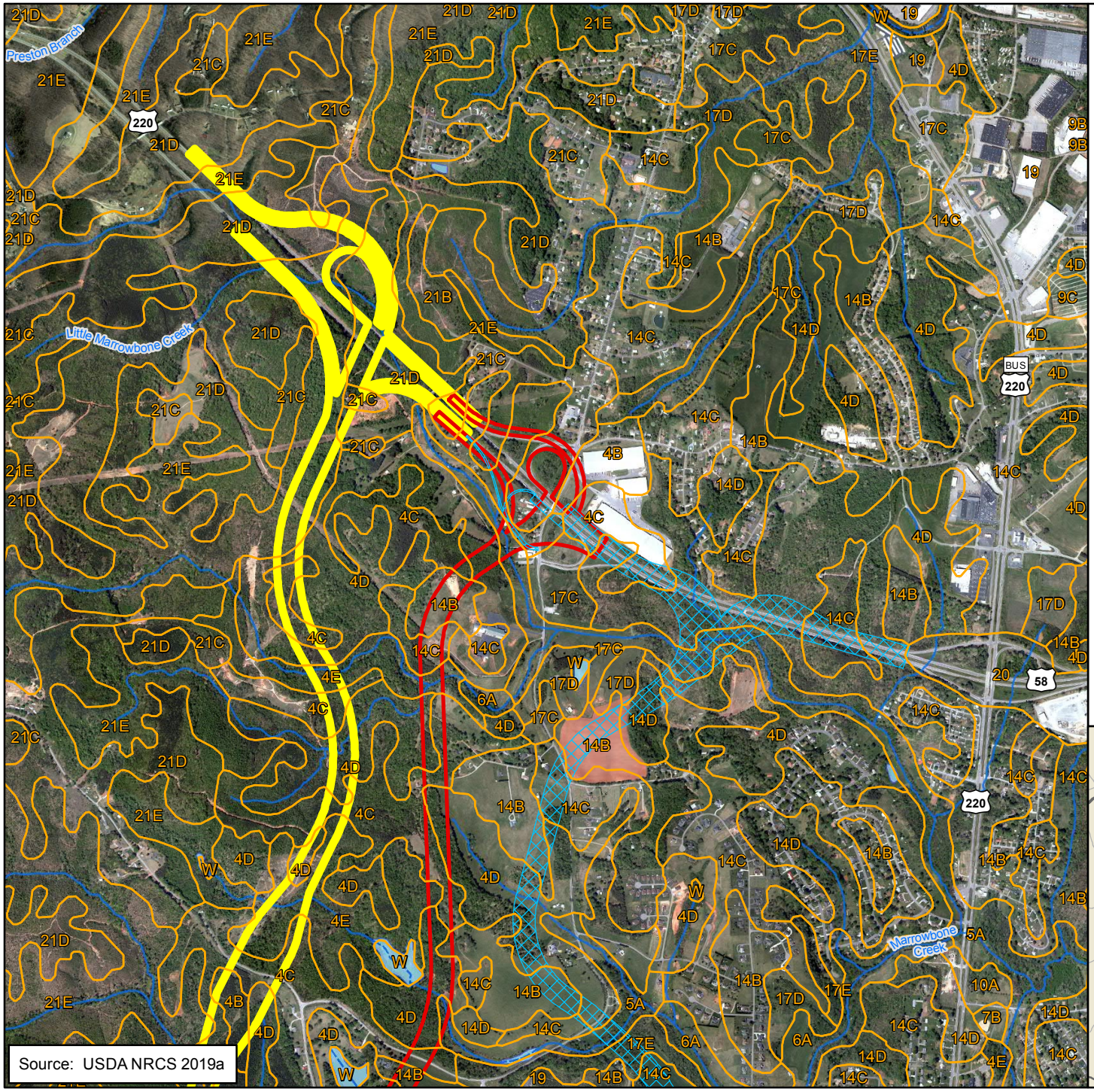
0 1,000 2,000 Feet

0 200 400 600 Meters

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876





VDOT
Martinsville Connector
Alternatives A, B, and C
Project Area Soils
Figure 2-2c

Alternative A
Alternative B
Alternative C
Soil Map Unit Boundary

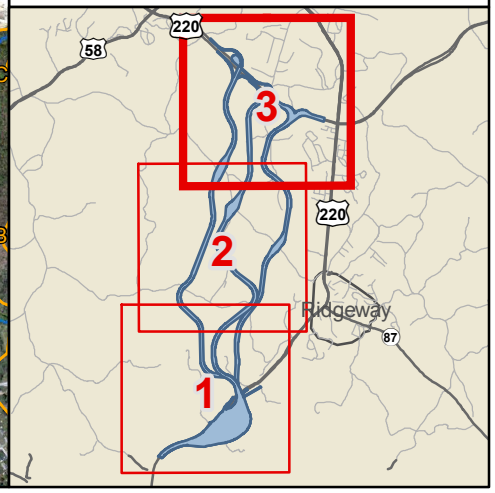
Soil Types Intersecting the APE	
Symbol	**Name**
4B	Clifford sandy loam, 2-7% slopes
4C	Clifford sandy loam, 7-15% slopes
4D	Clifford sandy loam, 15-25% slopes
4E	Clifford sandy loam, 25-45% slopes
5A	Codorus loam, 0-2% slopes, frequently flooded
6A	Colvard fine sandy loam, 0-2% slopes, occasionally flooded
14B	Minnieville loam, 2-7% slopes
14C	Minnieville loam, 7-15% slopes
14D	Minnieville loam, 15-25% slopes
16B	Orenda sandy loam, 2-7% slopes
17C	Orenda-Spriggs complex, 7-15% slopes
17D	Orenda-Spriggs complex, 15-25% slopes
17E	Orenda-Spriggs complex, 25-45% slopes
19	Udorthents-Urban land complex, 2-15% slopes
20	Udorthents, loamy
21C	Woolwine-Clifford complex, 7-15% slopes
21D	Woolwine-Clifford complex, 15-25% slopes
21E	Woolwine-Clifford complex, 25-45% slopes
W	Water

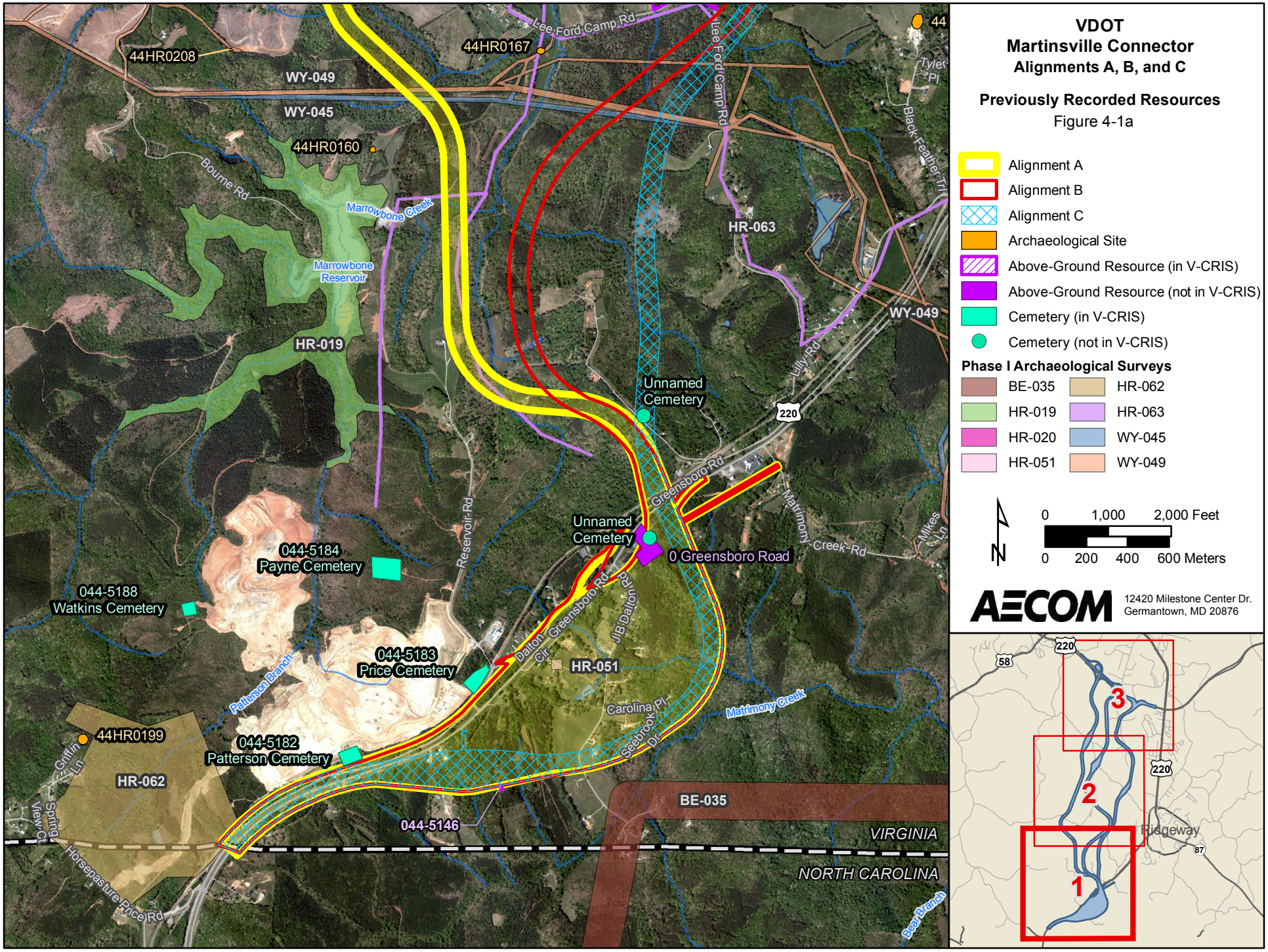
N

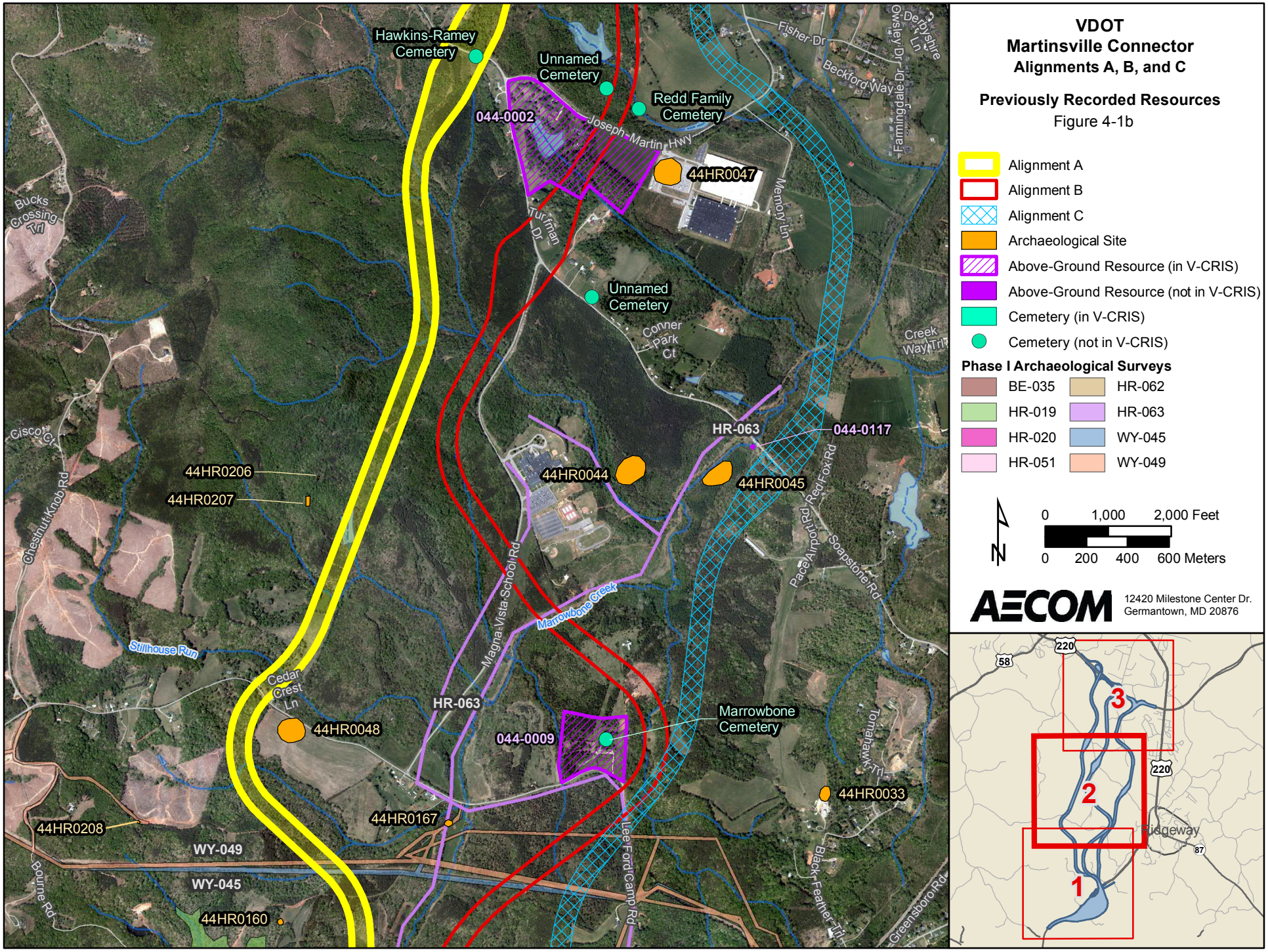
0 1,000 2,000 Feet

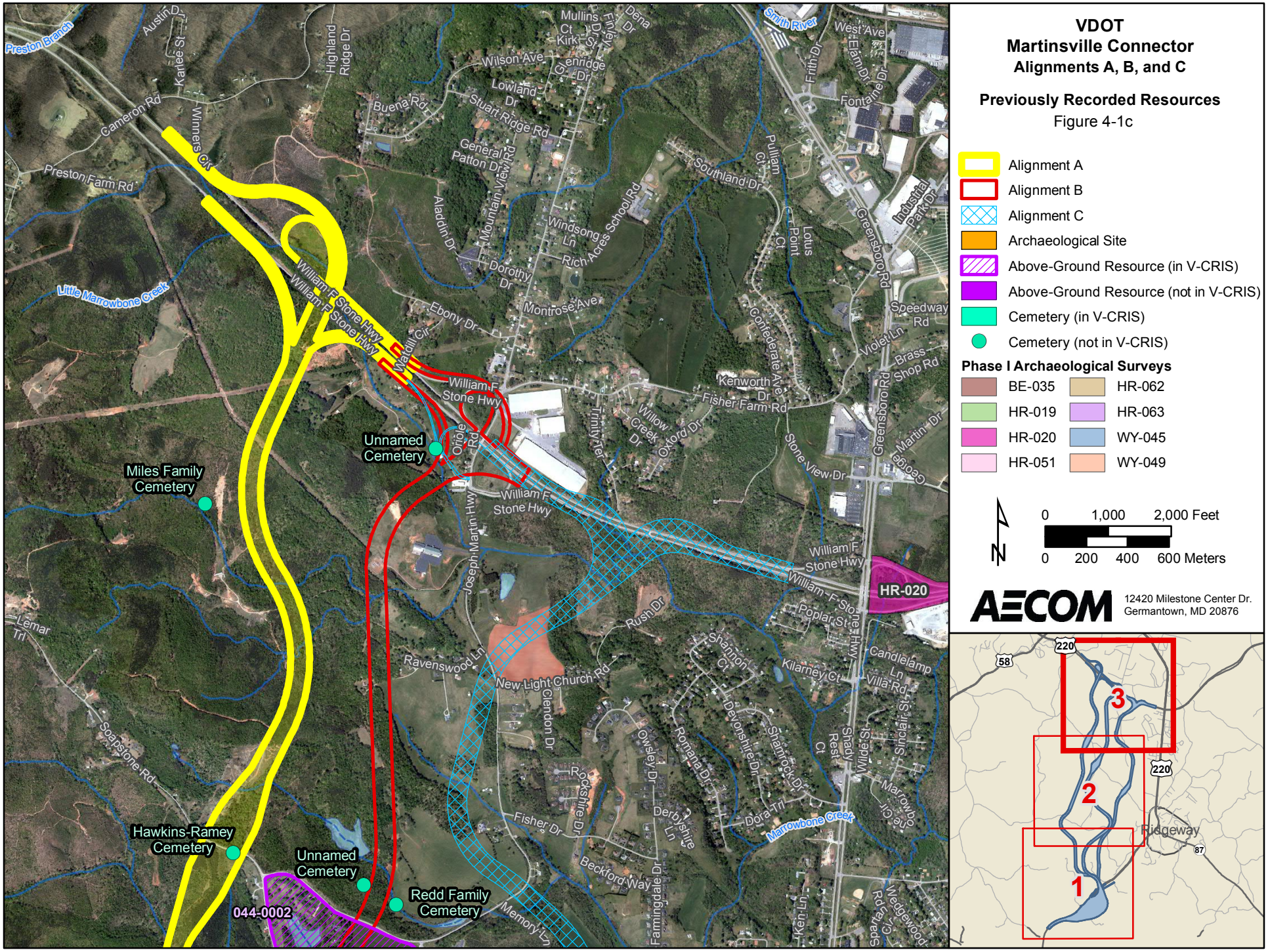
0 200 400 600 Meters

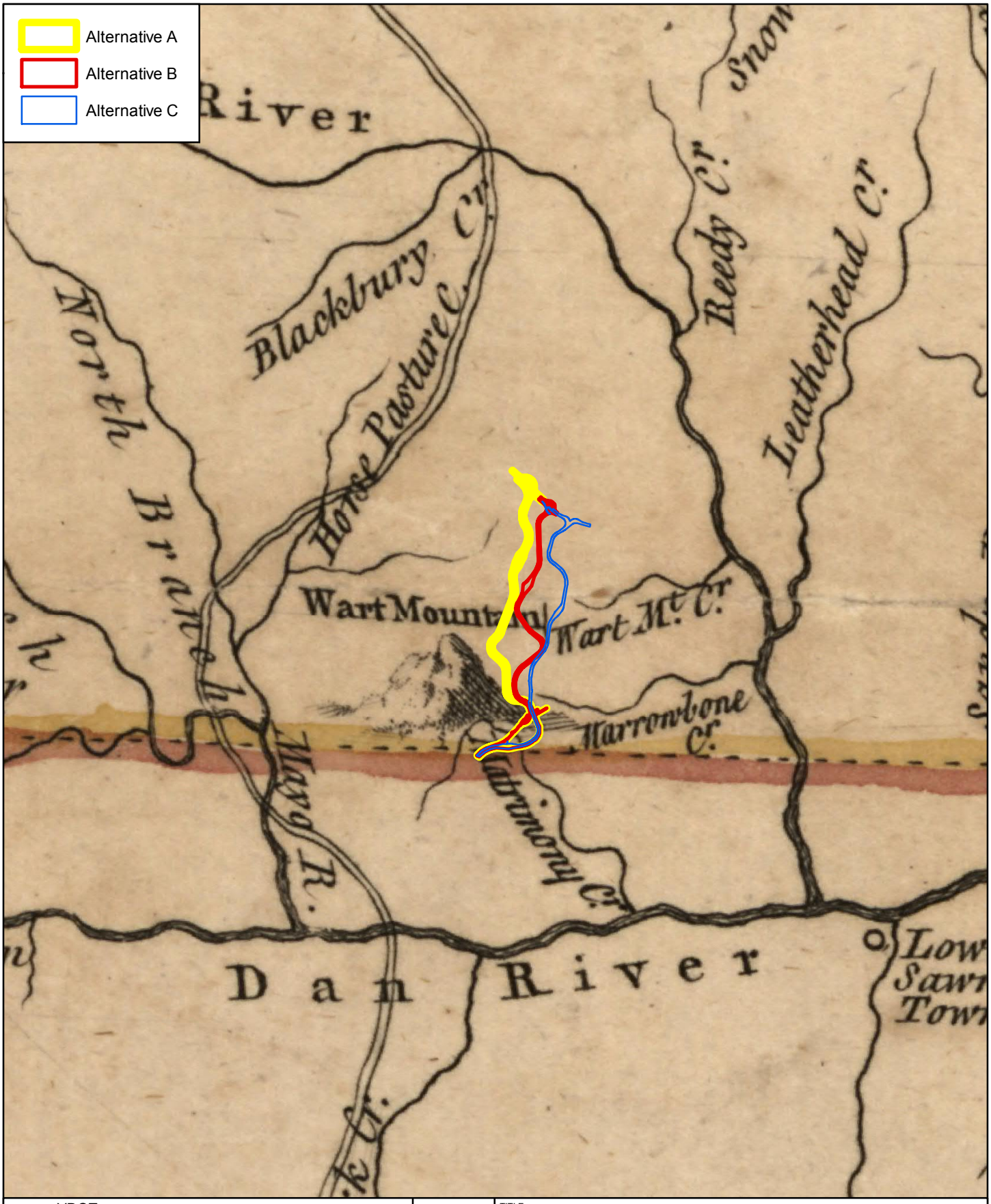
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876




VDOT
Martinsville Connector
Alignments A, B, and C
Previously Recorded Resources
Figure 4-1a
Alignment A
Alignment B
Alignment C
Archaeological Site
Above-Ground Resource (in V-CRIS)
Above-Ground Resource (not in V-CRIS)
Cemetery (in V-CRIS)
Cemetery (not in V-CRIS)
Phase I Archaeological Surveys
BE-035
HR-062
HR-019
HR-063
HR-020
WY-045
HR-051
WY-049
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
44HR0208
WY-049
WY-045
44HR0160
Bourne Rd
Marrowbone Creek
Marrowbone Reservoir
HR-019
44HR0167
Lee Ford Camp Rd
HR-063
Tyler Pl
Black Feather Trl
WY-049
Lilly Rd
220
Unnamed Cemetery
Greensboro Rd
Reservoir Rd
Unnamed Cemetery
0 Greensboro Road
Matrimony Creek Rd
Mikes Ln
044-5184
Payne Cemetery
044-5188
Watkins Cemetery
Dalton Greensboro Rd
JB Dalton Dr
Dalton Greensboro Cir
HR-051
044-5183
Price Cemetery
Patterson Branch
Carolina Pl
Seebrook Dr
Matrimony Creek
44HR0199
044-5182
Patterson Cemetery
Griffin Ln
HR-062
Spring View Ct
BE-035
044-5146
VIRGINIA
NORTH CAROLINA
Horsepasture Price Rd
Beaver Branch
58
3
2
1
Ridgeway
87


VDOT
Martinsville Connector
Alignments A, B, and C
Previously Recorded Resources
Figure 4-1b
Alignment A
Alignment B
Alignment C
Archaeological Site
Above-Ground Resource (in V-CRIS)
Above-Ground Resource (not in V-CRIS)
Cemetery (in V-CRIS)
Cemetery (not in V-CRIS)
Phase I Archaeological Surveys
BE-035
HR-062
HR-019
HR-063
HR-020
WY-045
HR-051
WY-049
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Hawkins-Ramey Cemetery
Unnamed Cemetery
Redd Family Cemetery
044-0002
Joseph Martin Hwy
44HR0047
Unnamed Cemetery
Conner Park Ct
HR-063
044-0117
44HR0044
44HR0045
44HR0206
44HR0207
Marrowbone Creek
Magna Vista School Rd
Pace Airport Rd
Red Fox Rd
Soapstone Rd
Stillhouse Run
Cedar Crest Ln
HR-063
44HR0048
044-0009
Marrowbone Cemetery
44HR0033
44HR0208
44HR0167
WY-049
WY-045
44HR0160
Lee Ford Camp Rd
Greensboro Rd
Bourne Rd
Chestnut Knob Rd
Cisco Ct
Bucks Crossing Trl
Turfman Dr
Memory Ln
Fisher Dr
Beckford Way
Farmingdale Dr
Derbyshire Ln
Creek Way Trl
Tomahawk Trl
Black Feather Trl
Ridgeway
220
58
87
1
2
3


VDOT
Martinsville Connector
Alignments A, B, and C
Previously Recorded Resources
Figure 4-1c
Alignment A
Alignment B
Alignment C
Archaeological Site
Above-Ground Resource (in V-CRIS)
Above-Ground Resource (not in V-CRIS)
Cemetery (in V-CRIS)
Cemetery (not in V-CRIS)
Phase I Archaeological Surveys
BE-035
HR-062
HR-019
HR-063
HR-020
WY-045
HR-051
WY-049
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Unnamed Cemetery
Miles Family Cemetery
Hawkins-Ramey Cemetery
Unnamed Cemetery
Redd Family Cemetery
044-0002
HR-020
Preston Branch
Little Marrowbone Creek
Marrowbone Creek
Smith River
William F Stone Hwy
Ridgeway
1
2
3



CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:200,000
SOURCE	Fry and Jefferson 1755
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

N

TITLE

1755 Fry and Jefferson Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60606055
FIGURE	6-1

CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:200,000
SOURCE	Henry 1770
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

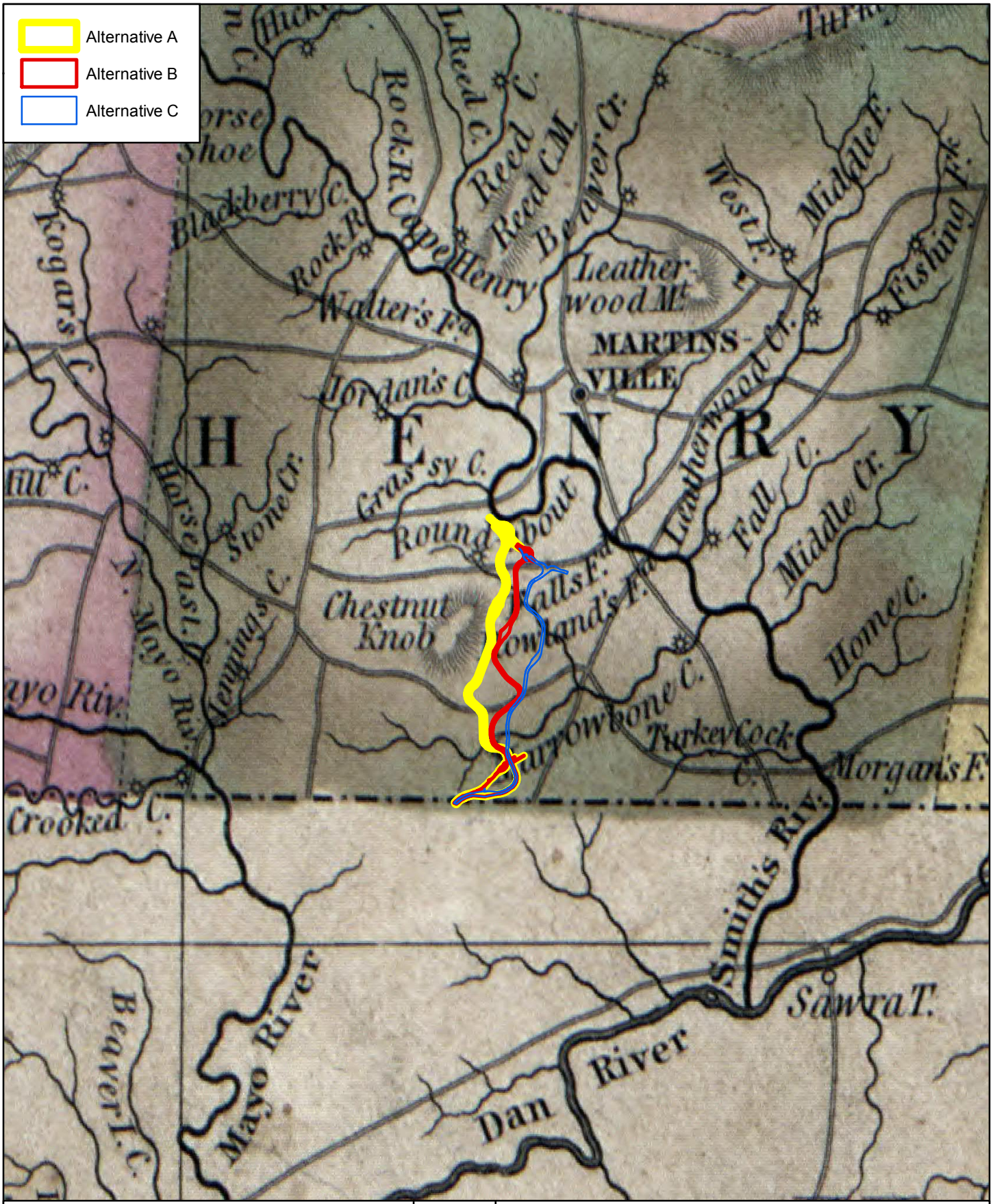
N

TITLE
1770 Henry Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60606055

FIGURE 6-2



CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:200,000
SOURCE	Böÿe 1827
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

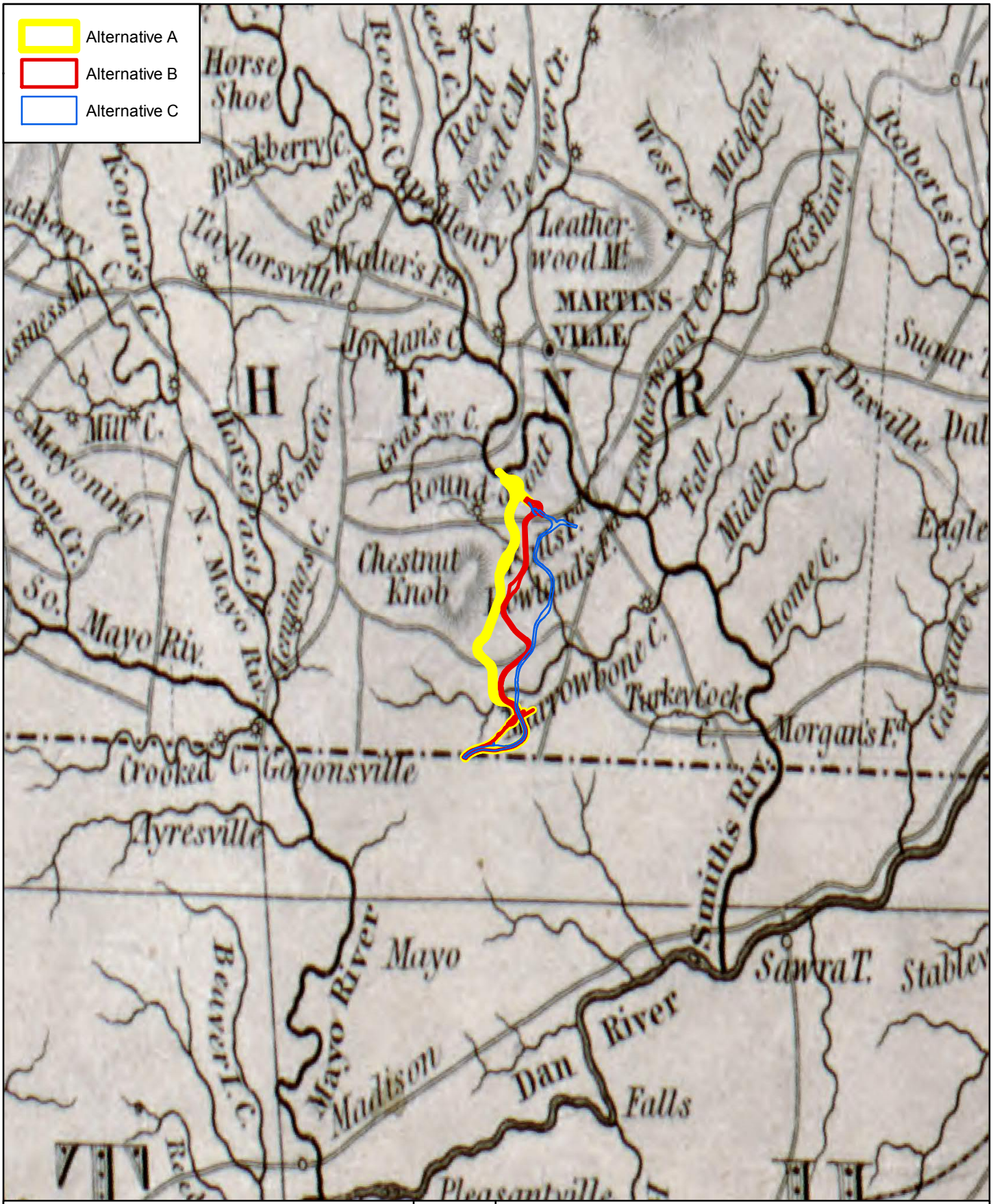
N

TITLE
1827 Böÿe Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60606055

FIGURE 6-3



CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:200,000
SOURCE	Böÿe and Buchholtz 1859
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

N

TITLE

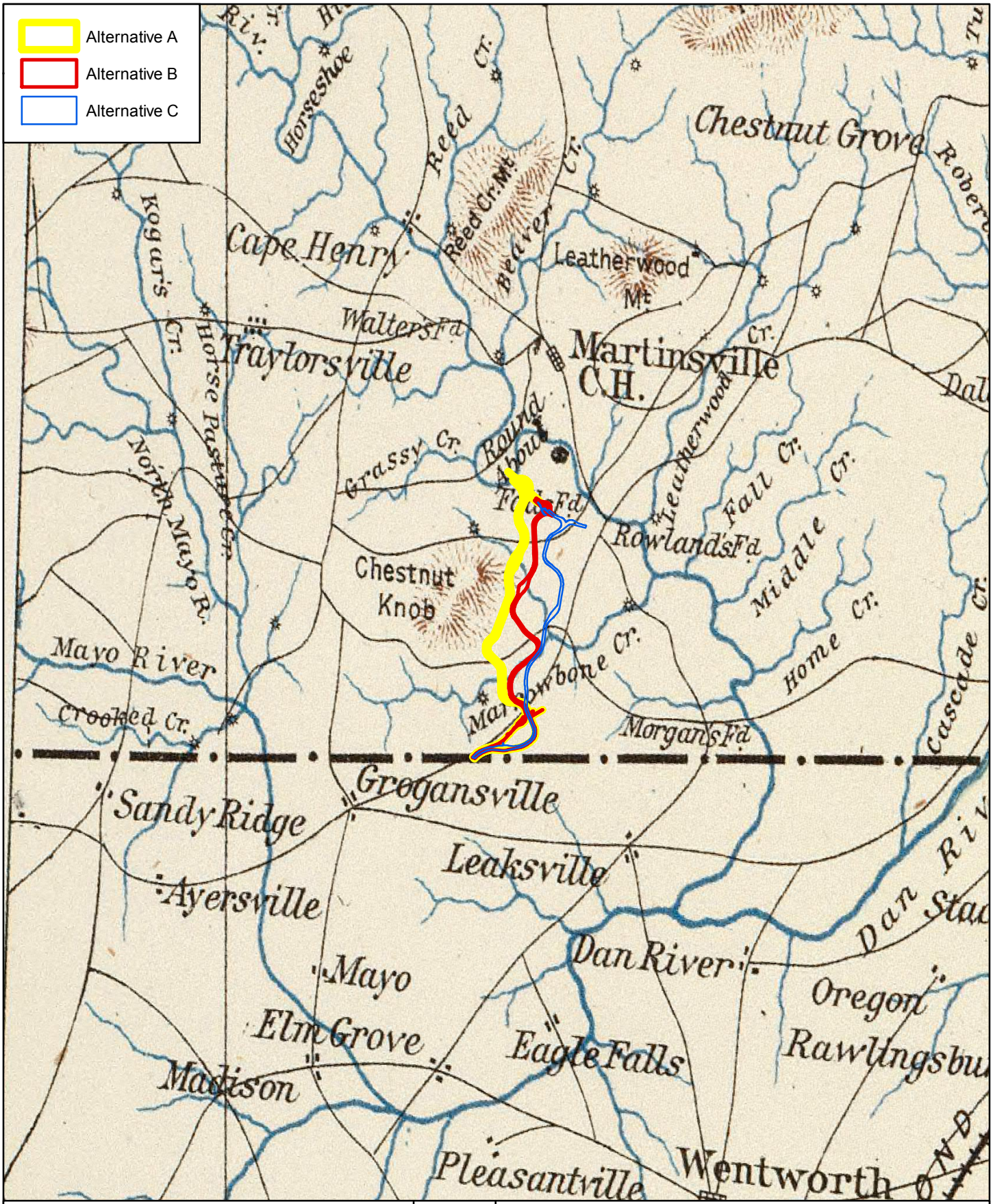
1859 Böÿe and Buchholtz Map

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60606055

FIGURE 6-4



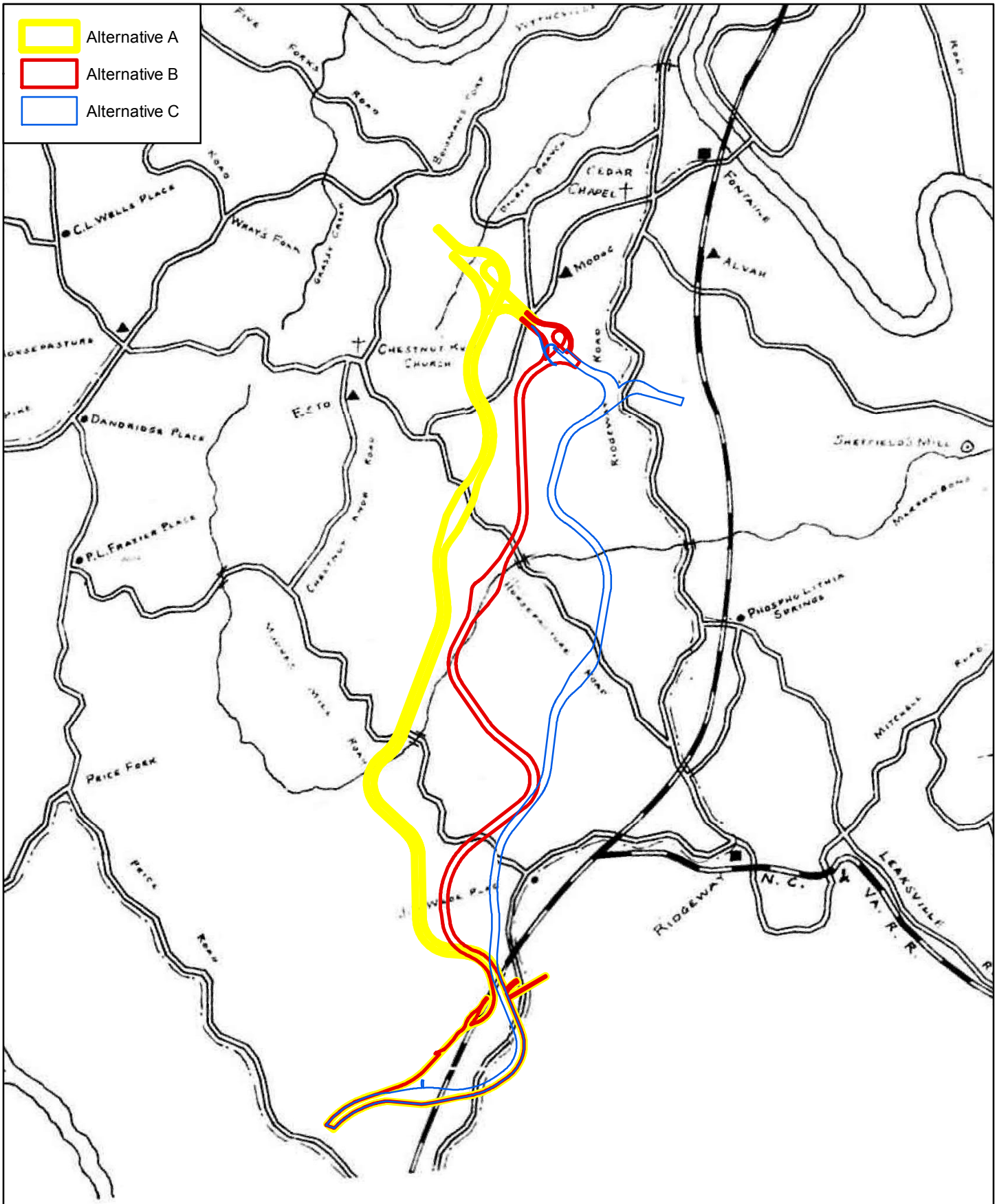
CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:200,000
SOURCE	Julius Bien & Co. 1895
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

TITLE: 1895 Julius Bien & Co. Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60606055

FIGURE 6-5

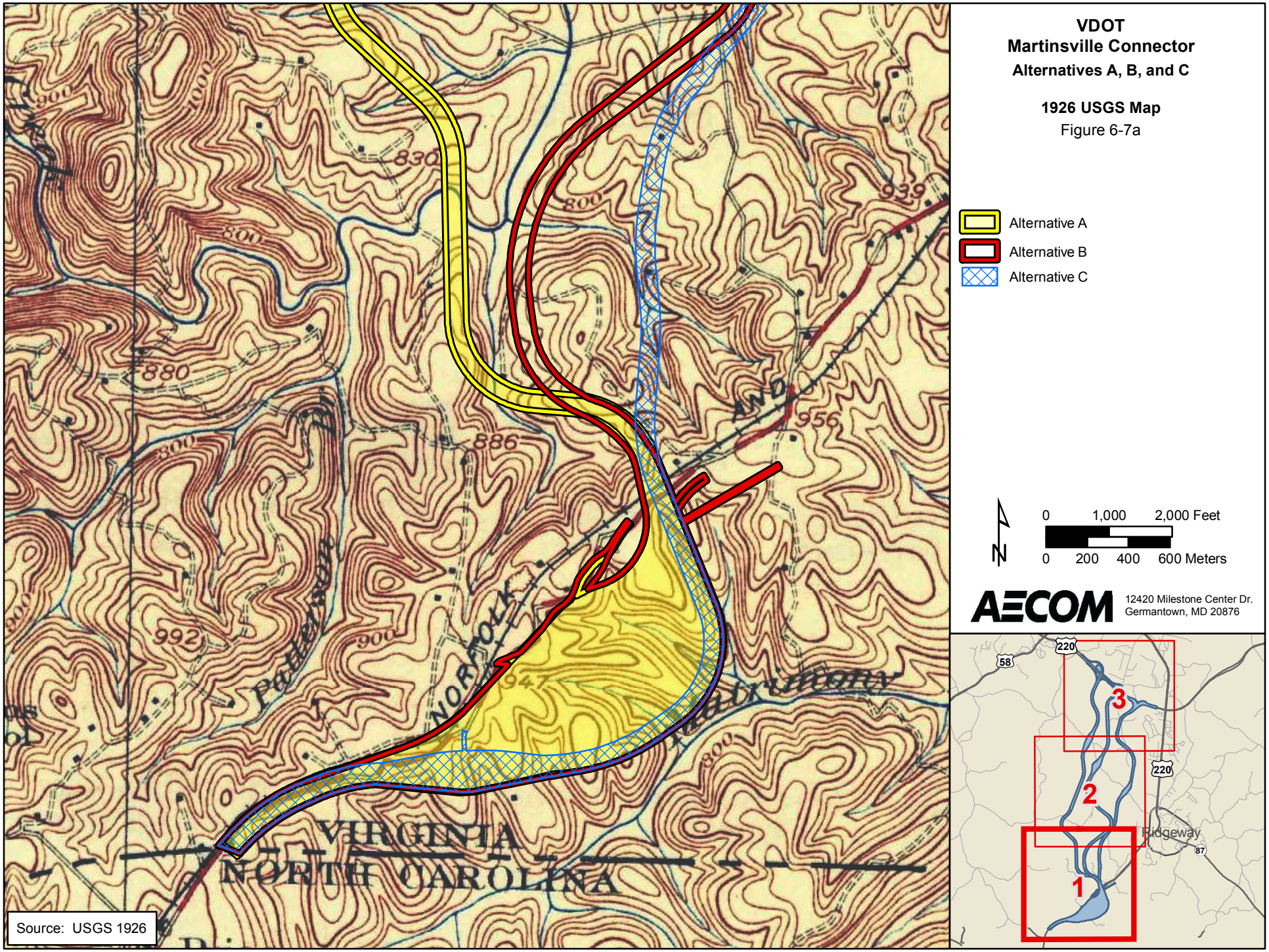


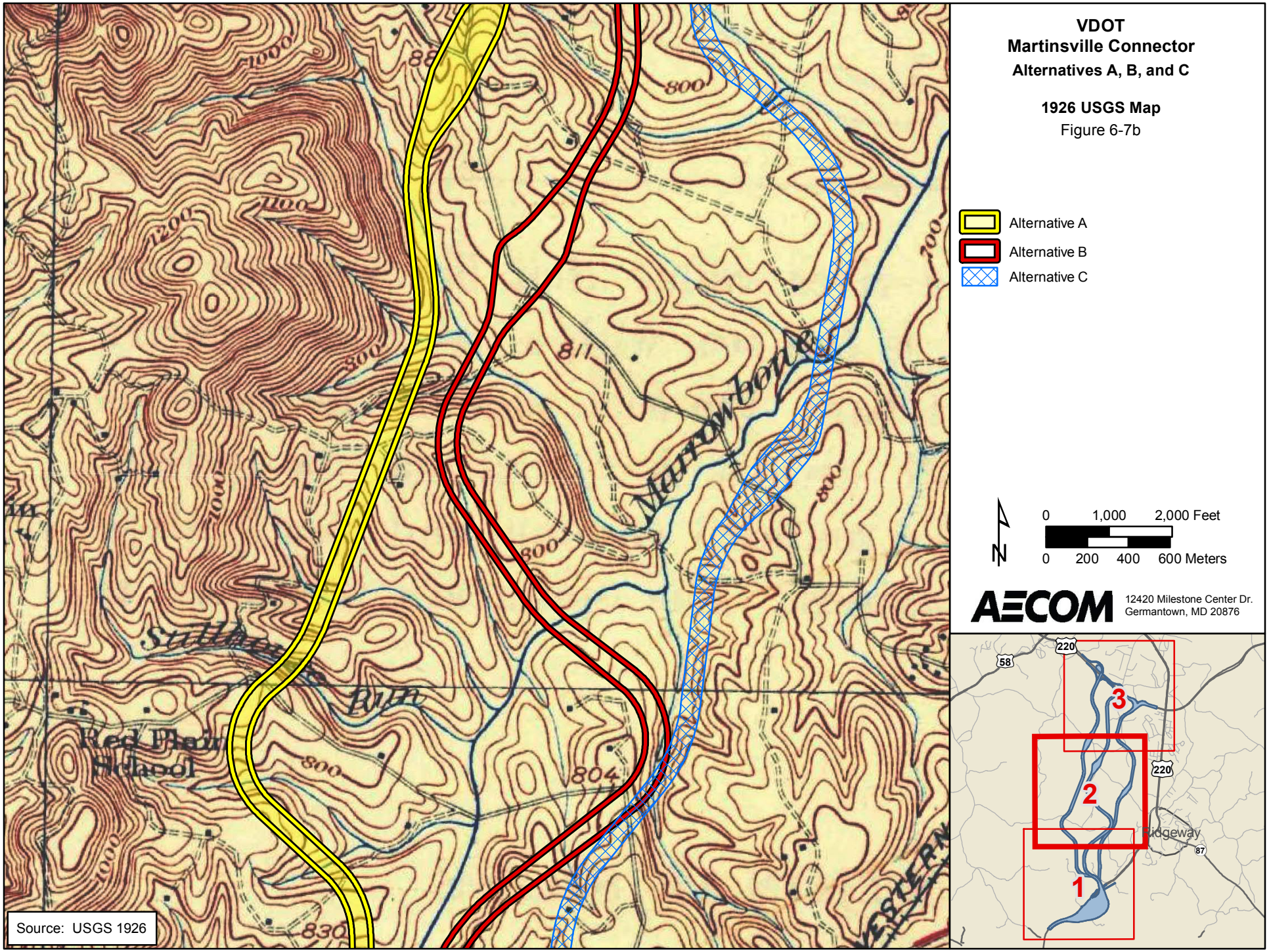
CLIENT	VDOT
PROJ	Martinsville Phase Ia
SCALE	1:64,000
SOURCE	Barr 1911
	Q:\germantown\Projects\ENV\IAP\CRM\VDOT\037_Martinsville Connector\900-GIS and Graphics\920 GIS

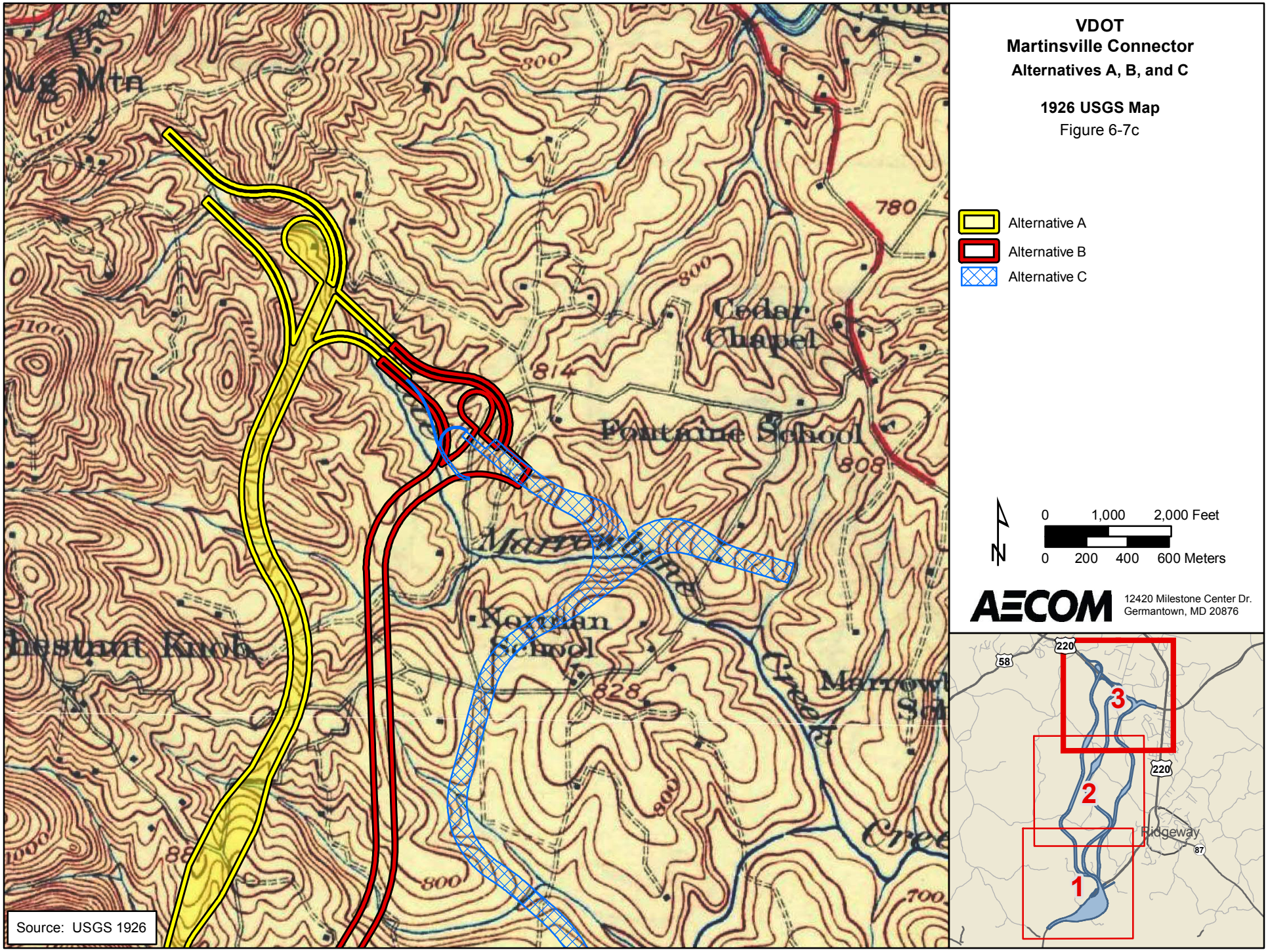
TITLE
1911 Barr Map

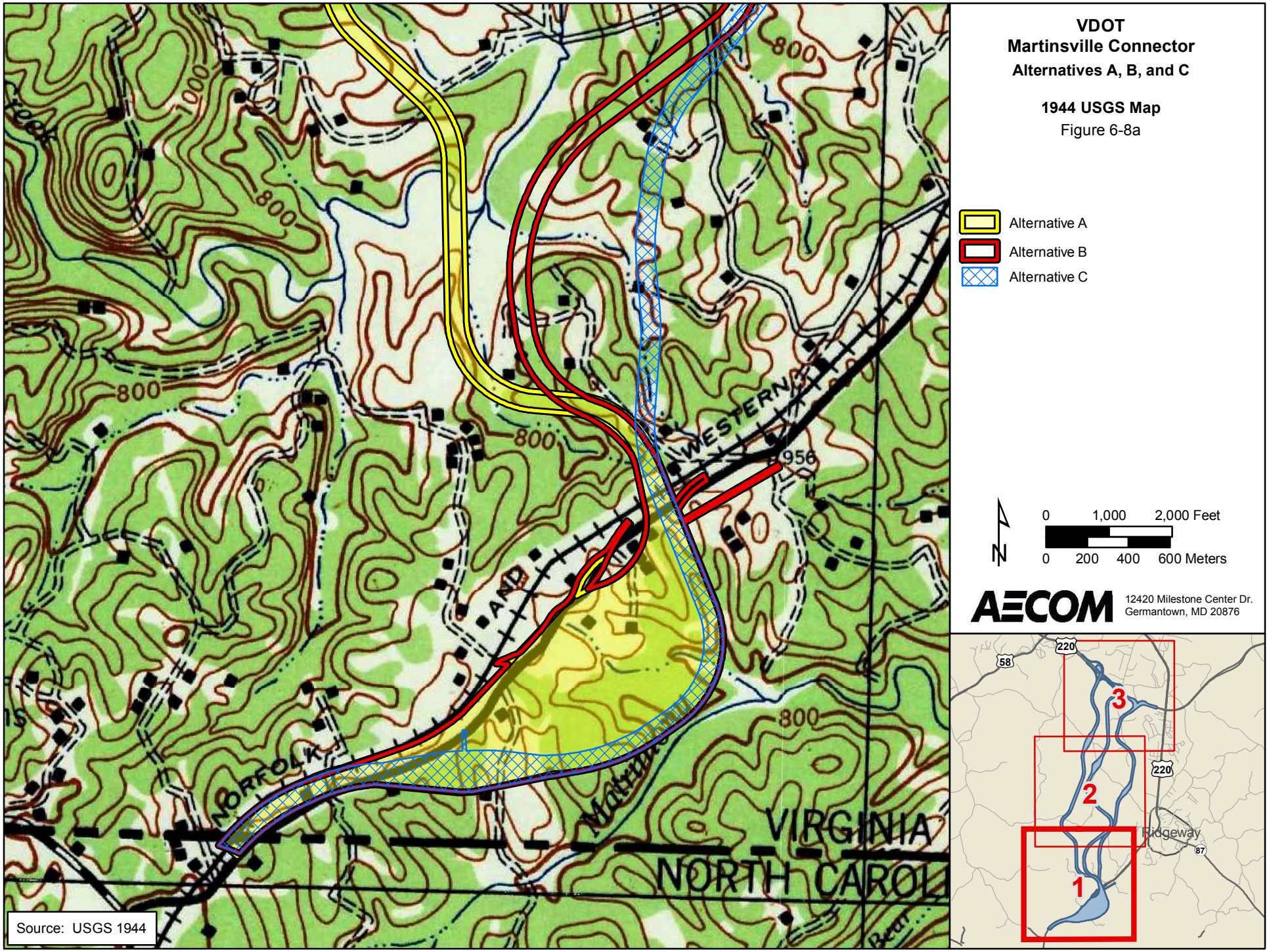
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

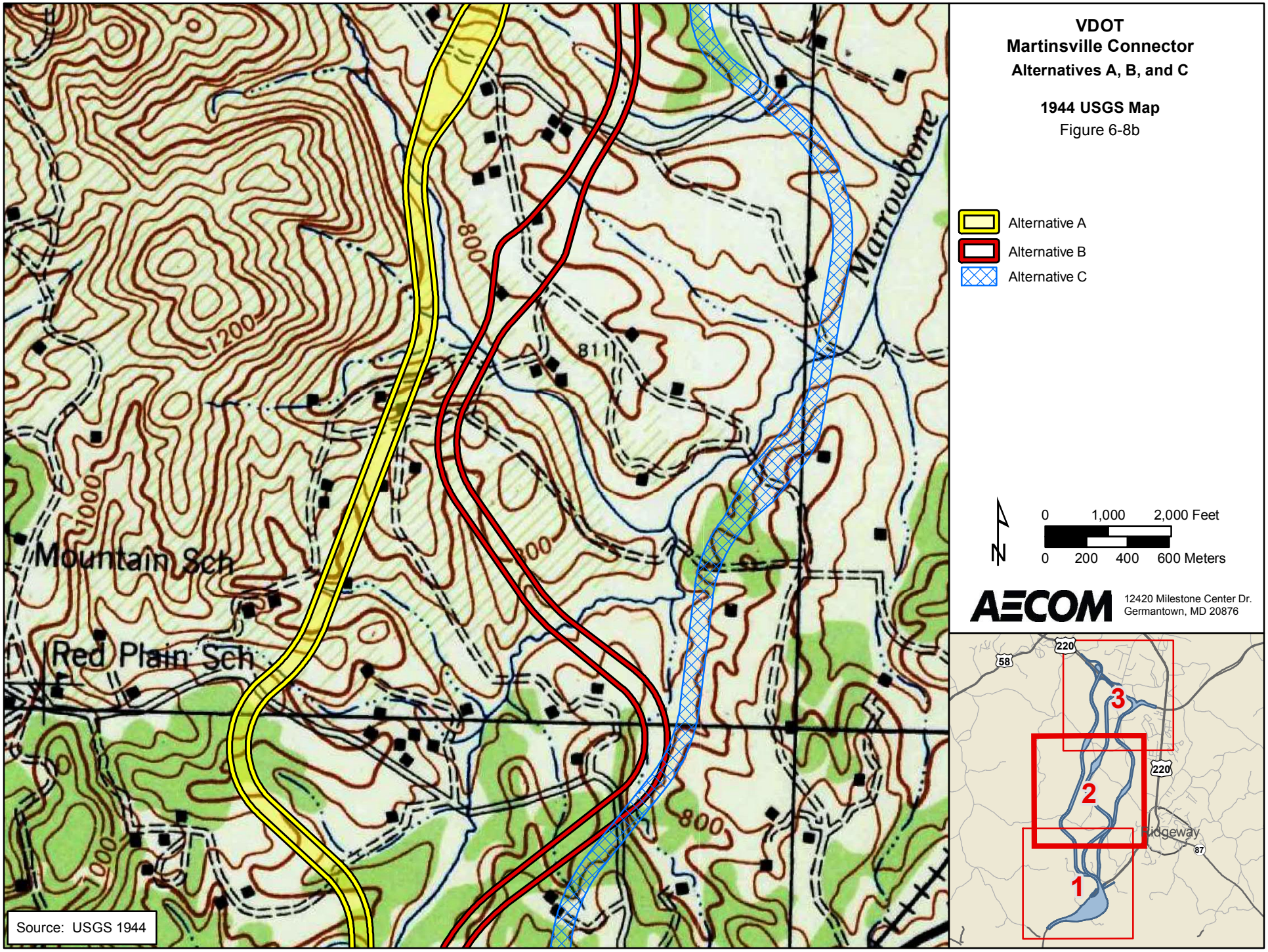
PROJ NO 60606055
FIGURE 6-6

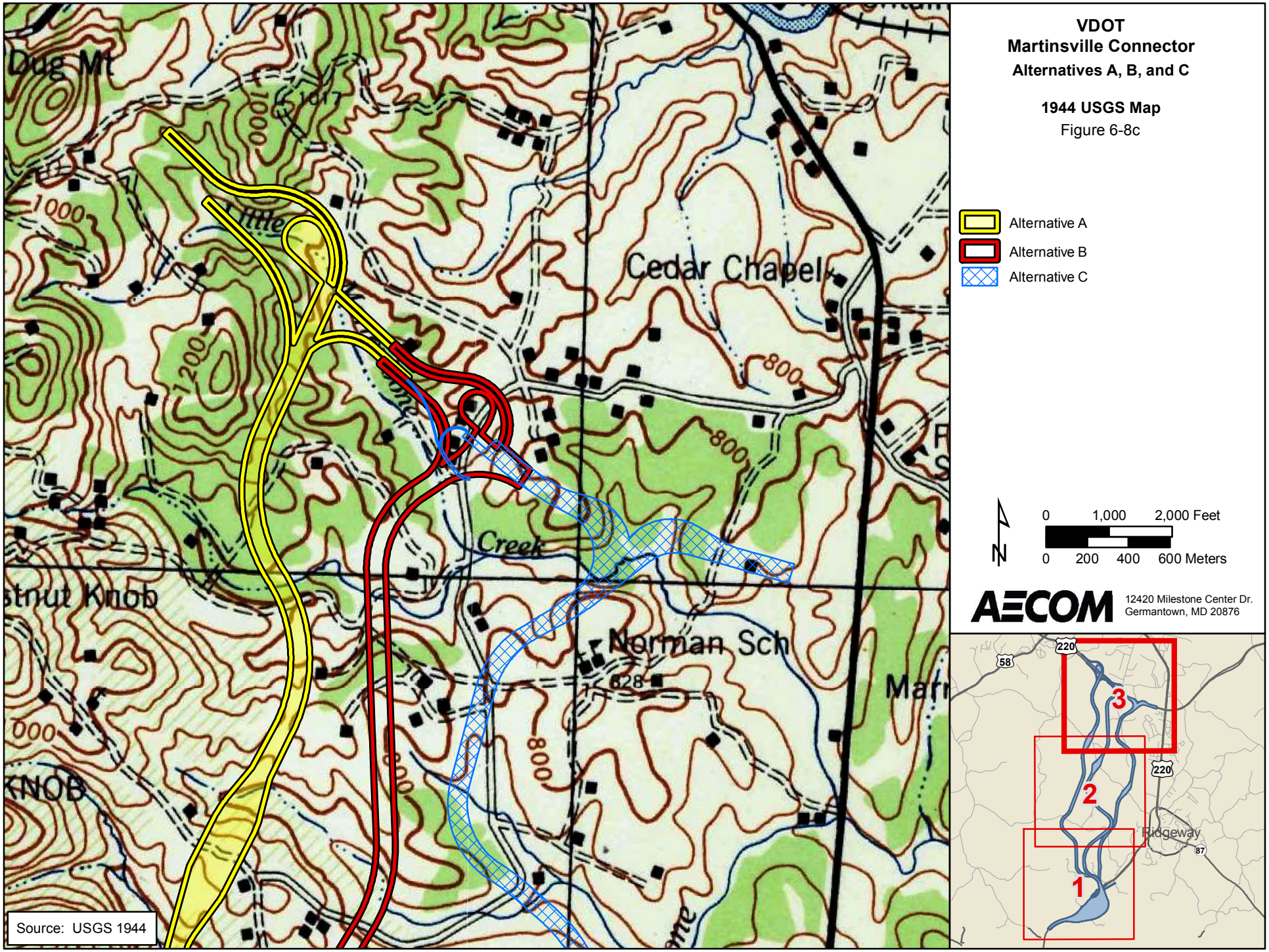

VDOT
Martinsville Connector
Alternatives A, B, and C
1926 USGS Map
Figure 6-7a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1926
VIRGINIA
NORTH CAROLINA
Patterson
NORFOLK
AND
220
58
87
Ridgeway
1
2
3

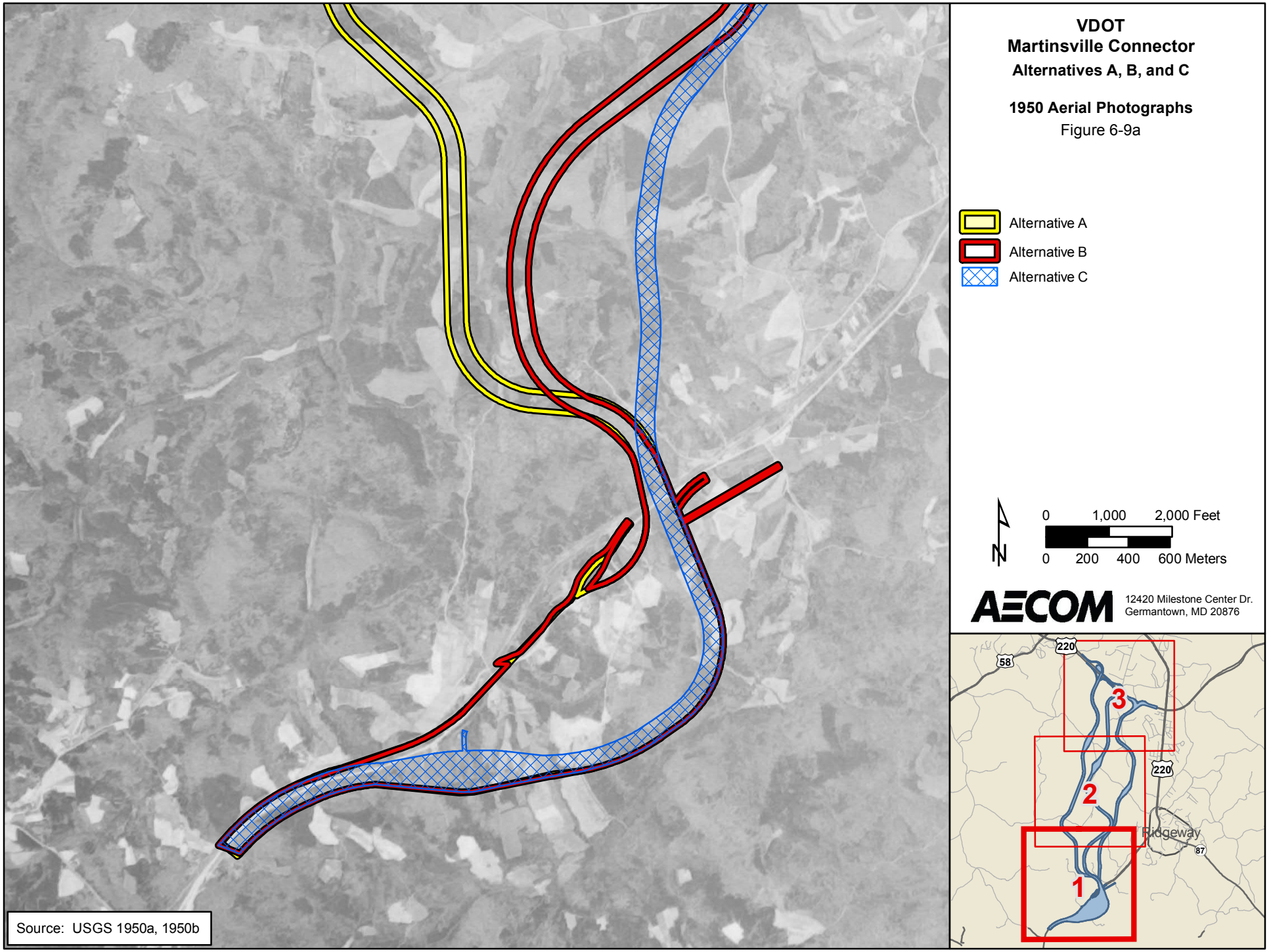

VDOT
Martinsville Connector
Alternatives A, B, and C
1926 USGS Map
Figure 6-7b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1926
220
58
3
2
1
220
Ridgeway
87

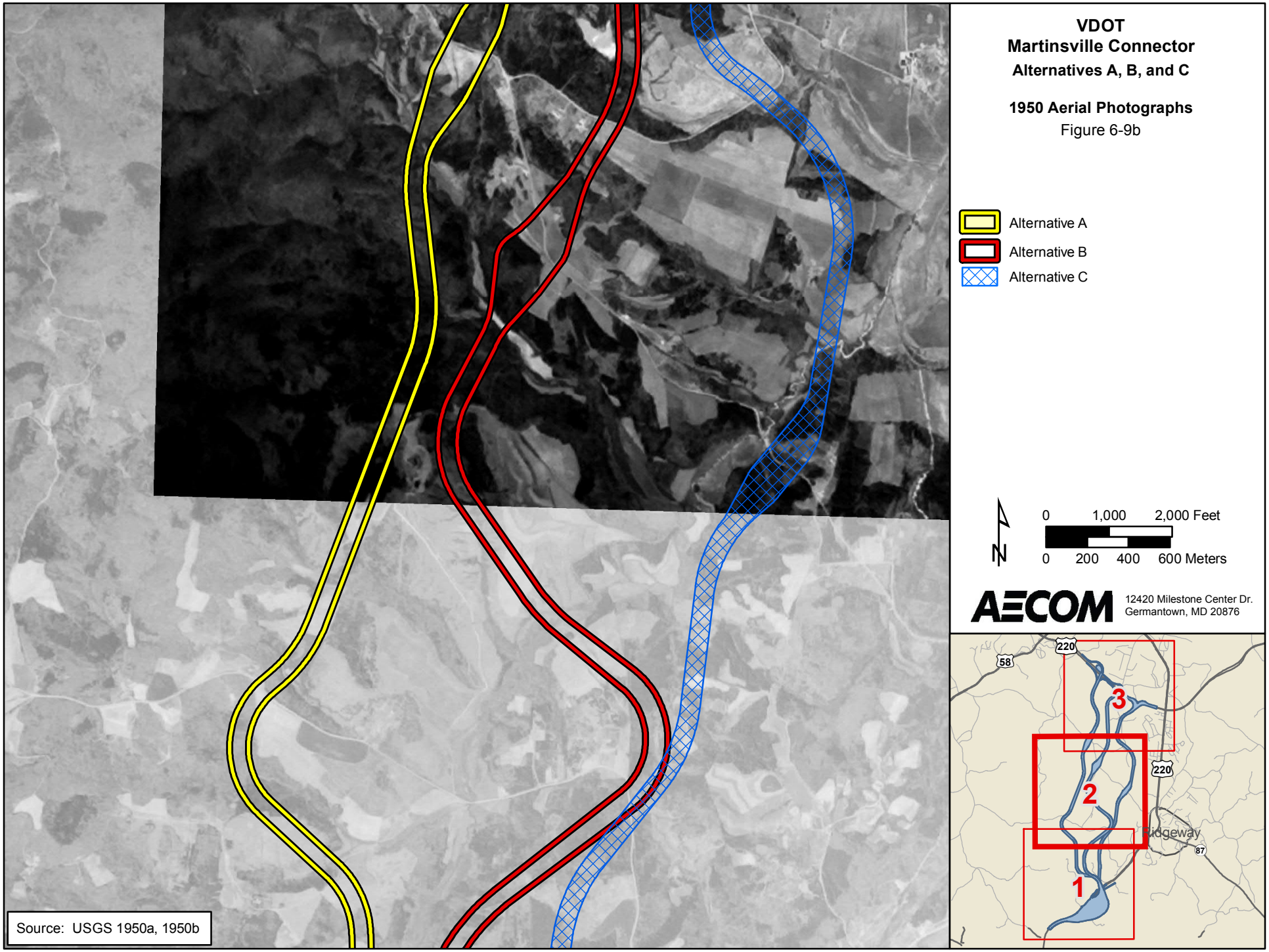

VDOT
Martinsville Connector
Alternatives A, B, and C
1926 USGS Map
Figure 6-7c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1926
Cedar Chapel
Fontaine School
Norman School
Ridgeway
220
58
87
1
2
3

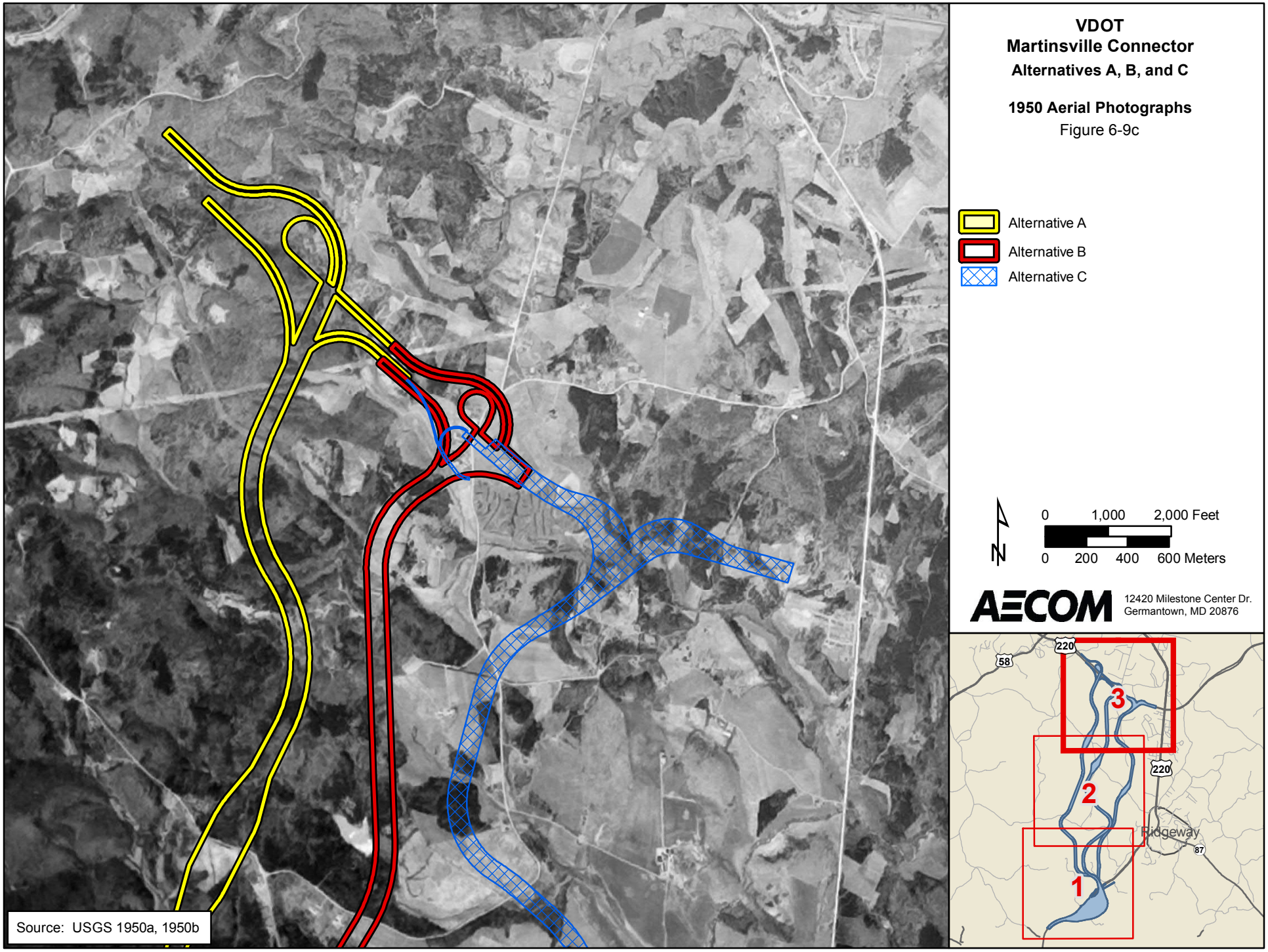

VDOT
Martinsville Connector
Alternatives A, B, and C
1944 USGS Map
Figure 6-8a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1944
800
956
WESTERN
NORFOLK
VIRGINIA
NORTH CAROL
Ridgeway
220
58
87
1
2
3

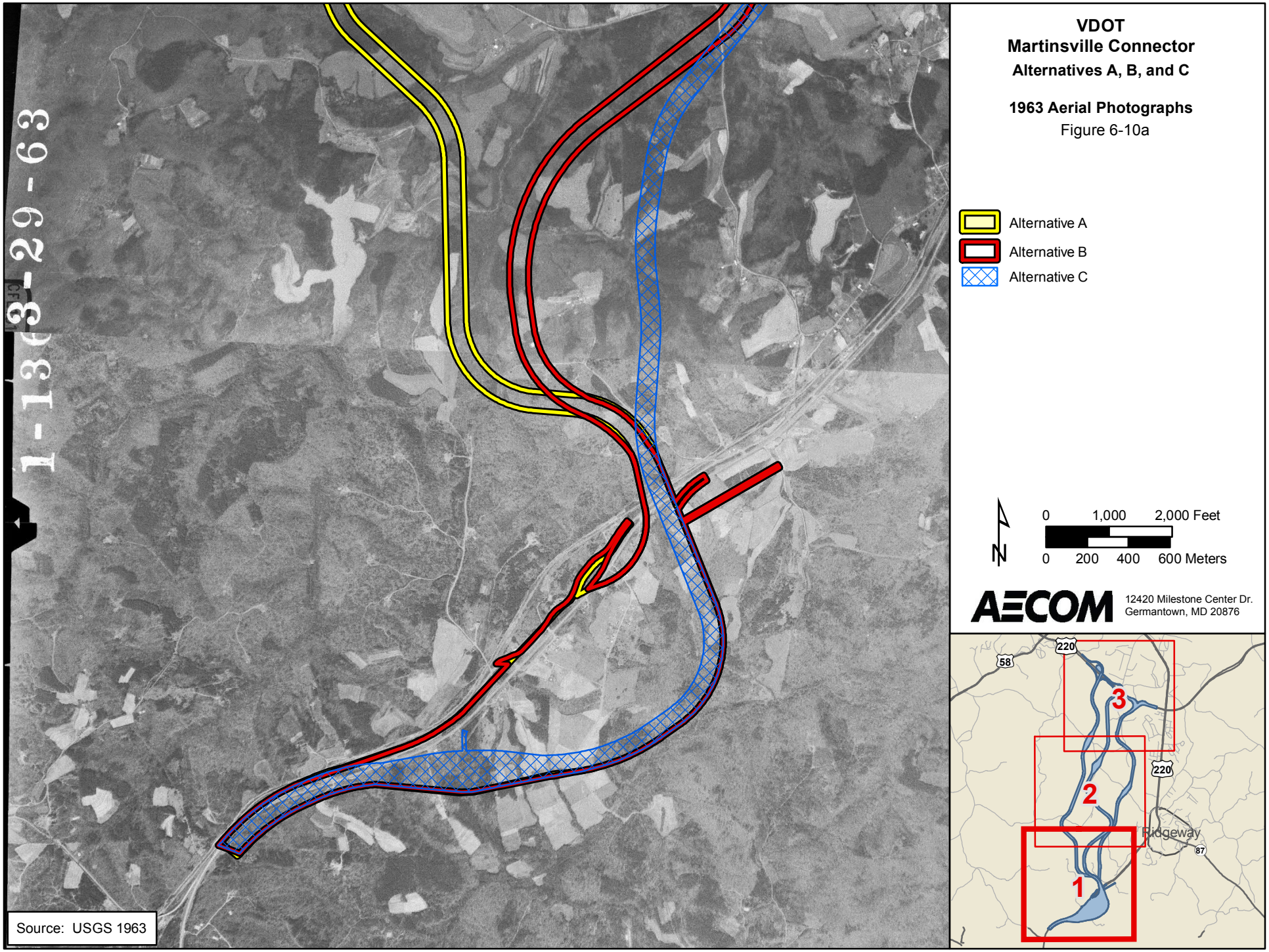

VDOT
Martinsville Connector
Alternatives A, B, and C
1944 USGS Map
Figure 6-8b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1944
Mountain Sch
Red Plain Sch
Marrowbone
1200
1000
800
811
220
58
87
Ridgeway
1
2
3

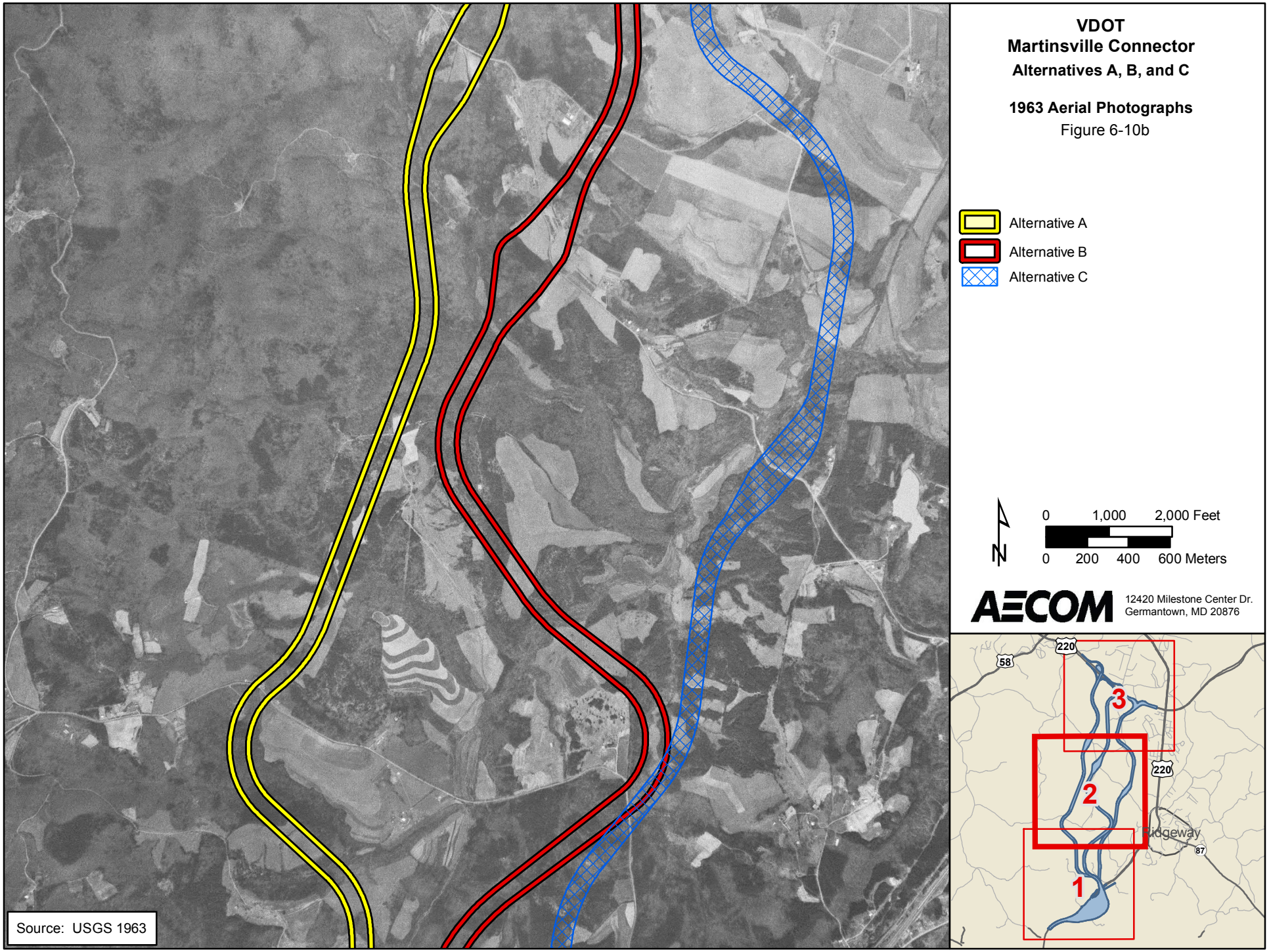

VDOT
Martinsville Connector
Alternatives A, B, and C
1944 USGS Map
Figure 6-8c
Alternative A
Alternative B
Alternative C
Cedar Chapel
Norman Sch
Creek
Doe Mt
KNOB
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Ridgeway
220
58
87
1
2
3
Source: USGS 1944

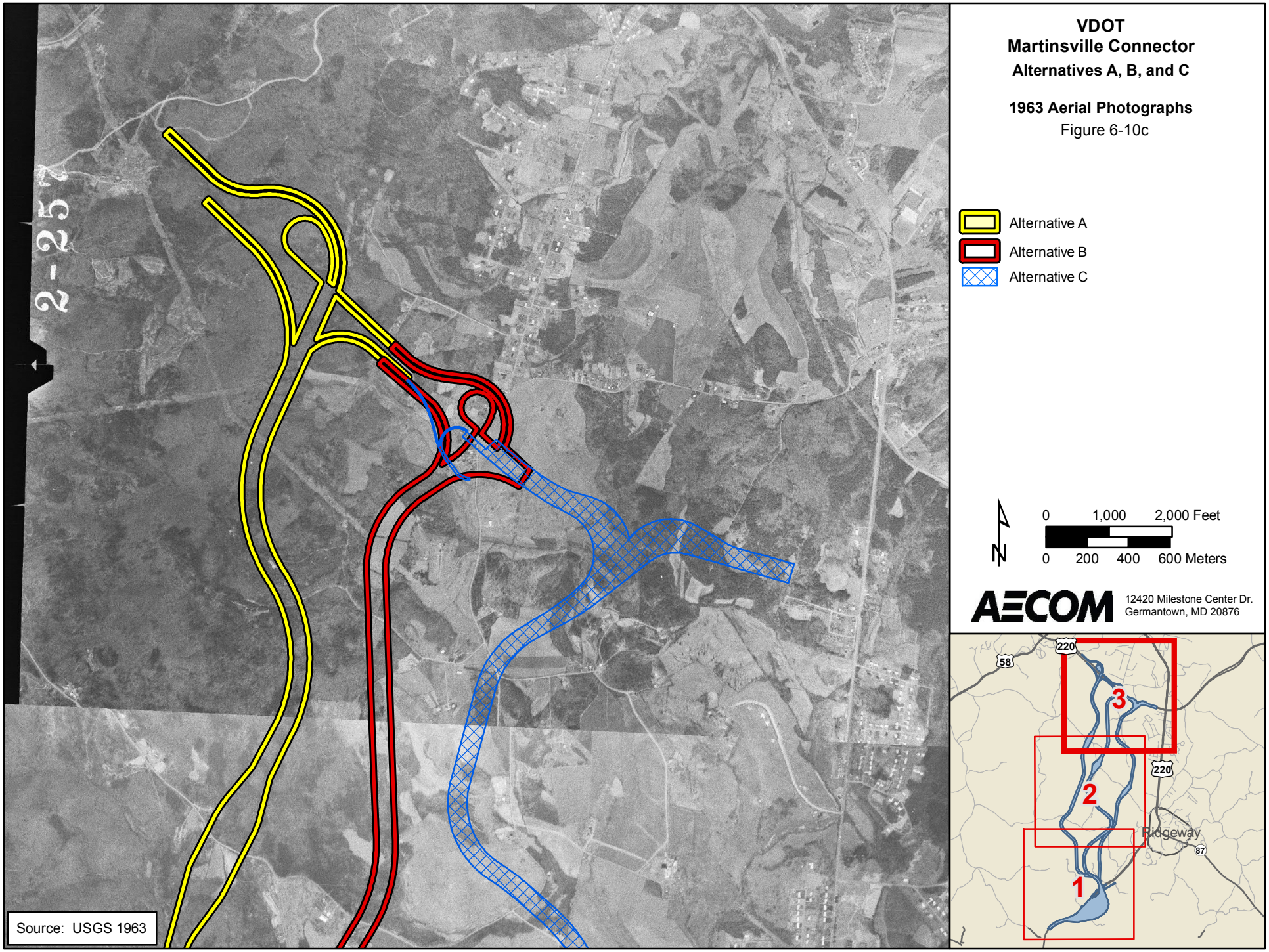

VDOT
Martinsville Connector
Alternatives A, B, and C
1950 Aerial Photographs
Figure 6-9a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
220
58
3
2
1
220
Ridgeway
87
Source: USGS 1950a, 1950b


VDOT
Martinsville Connector
Alternatives A, B, and C
1950 Aerial Photographs
Figure 6-9b
Alternative A
Alternative B
Alternative C
N
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1950a, 1950b
220
58
3
2
1
220
Ridgeway
87


VDOT
Martinsville Connector
Alternatives A, B, and C
1950 Aerial Photographs
Figure 6-9c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1950a, 1950b
220
58
3
2
1
220
Ridgeway
87

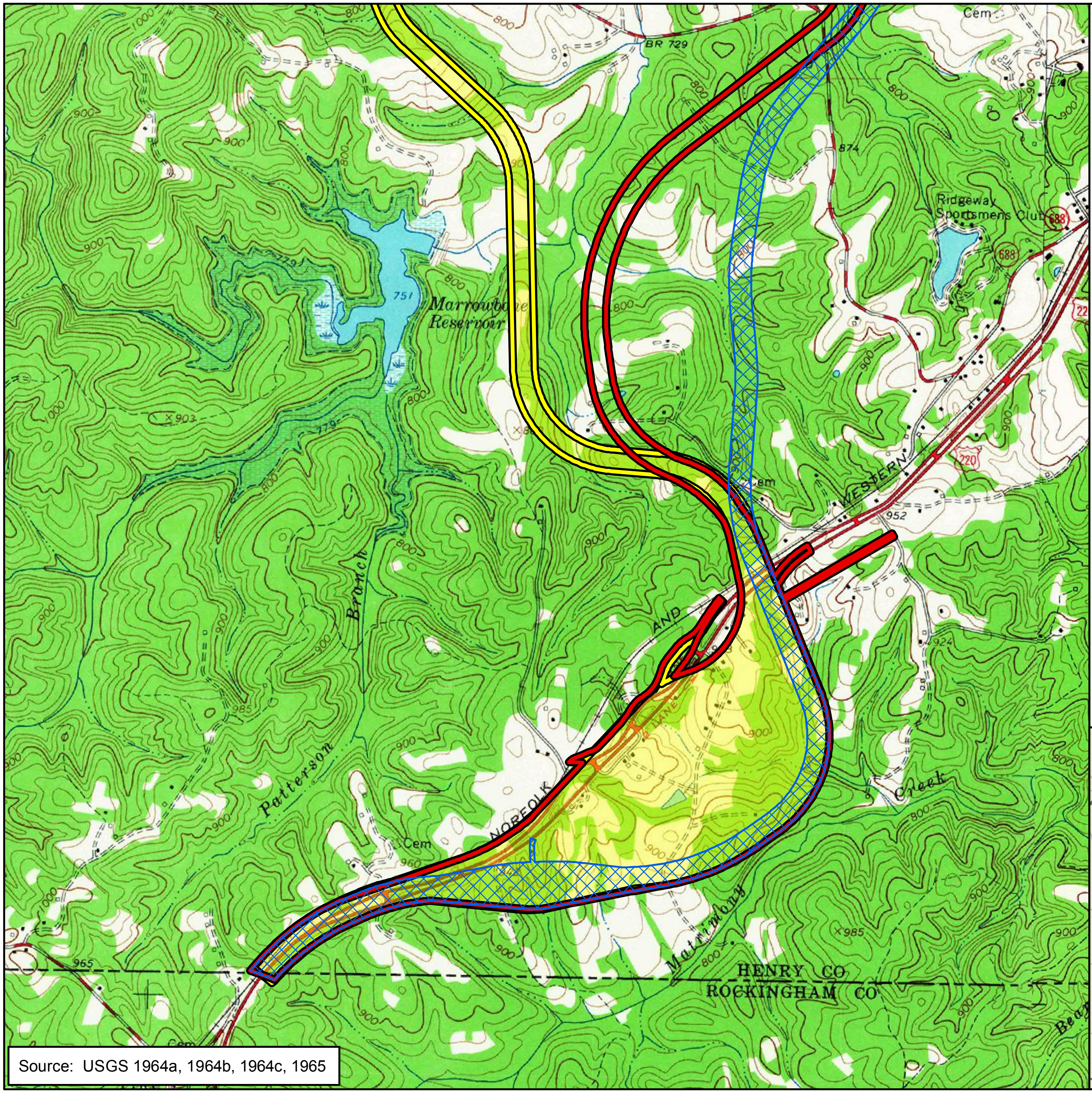

VDOT
Martinsville Connector
Alternatives A, B, and C
1963 Aerial Photographs
Figure 6-10a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1963
220
58
3
2
1
Ridgeway
87


VDOT
Martinsville Connector
Alternatives A, B, and C
1963 Aerial Photographs
Figure 6-10b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1963
220
58
3
2
1
220
Ridgeway
87


VDOT
Martinsville Connector
Alternatives A, B, and C
1963 Aerial Photographs
Figure 6-10c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1963
220
58
3
2
1
Ridgeway
87

VDOT
Martinsville Connector
Alternatives A, B, and C

1964-1965 USGS Maps
Figure 6-11a



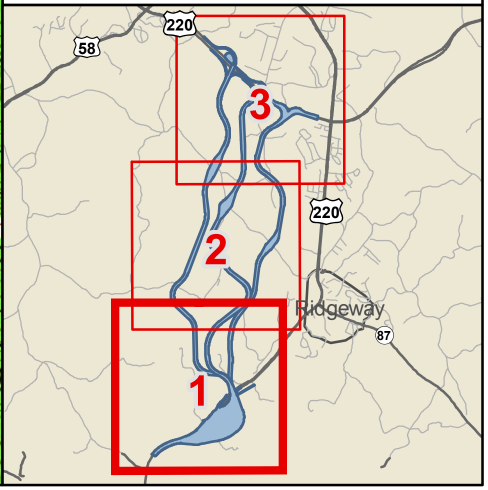
Source: USGS 1964a, 1964b, 1964c, 1965

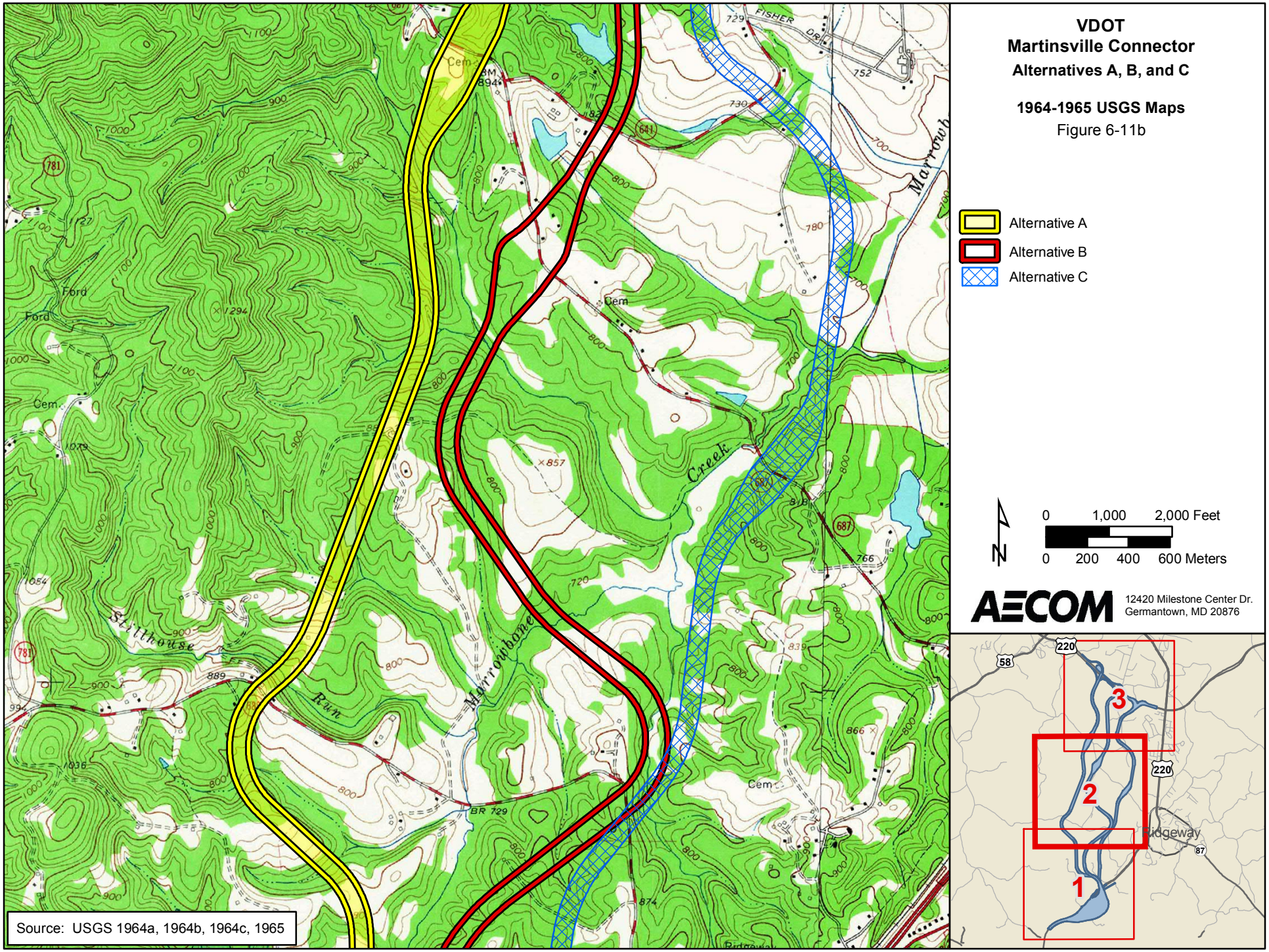
Alternative A
Alternative B
Alternative C

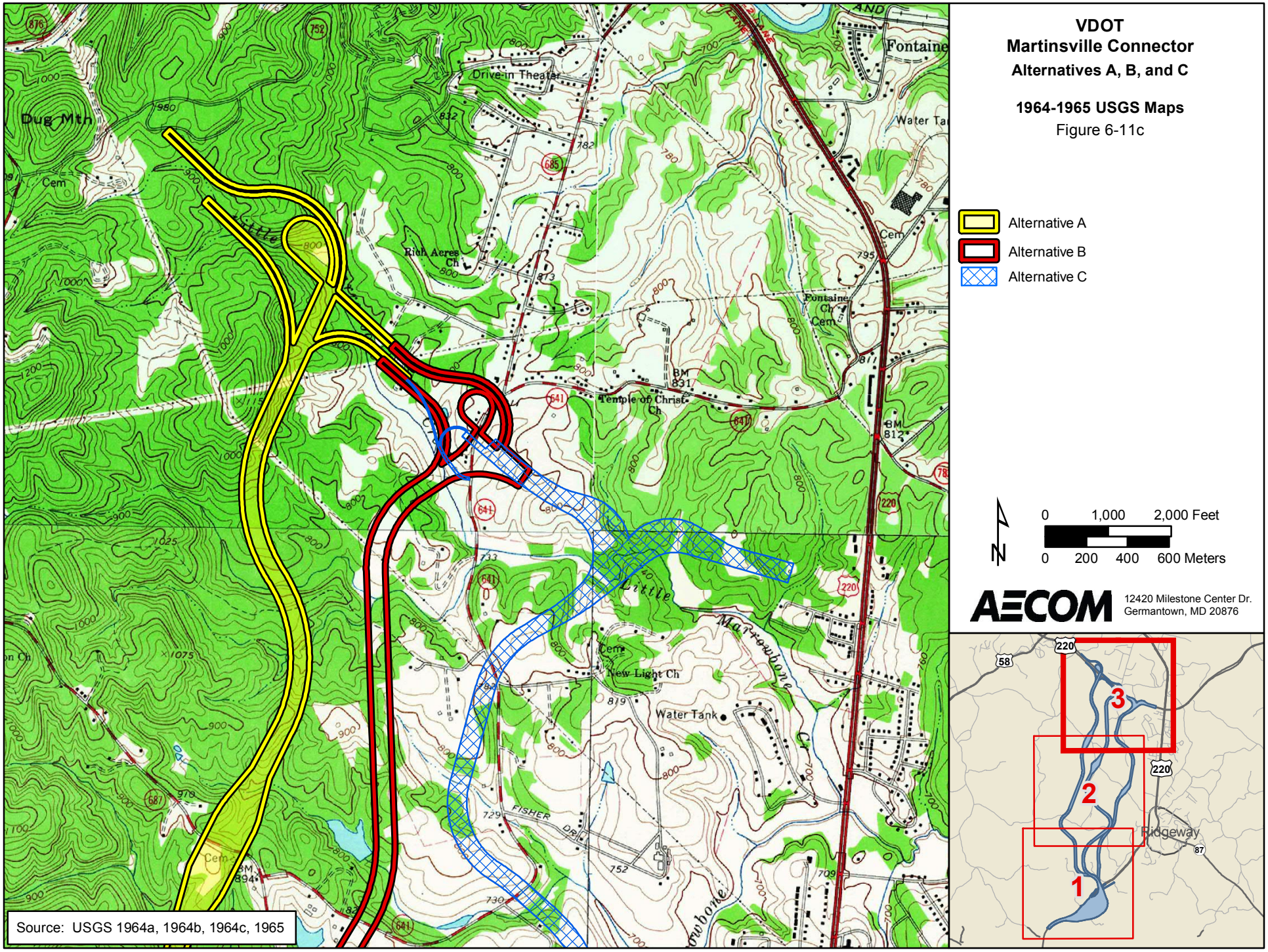
N

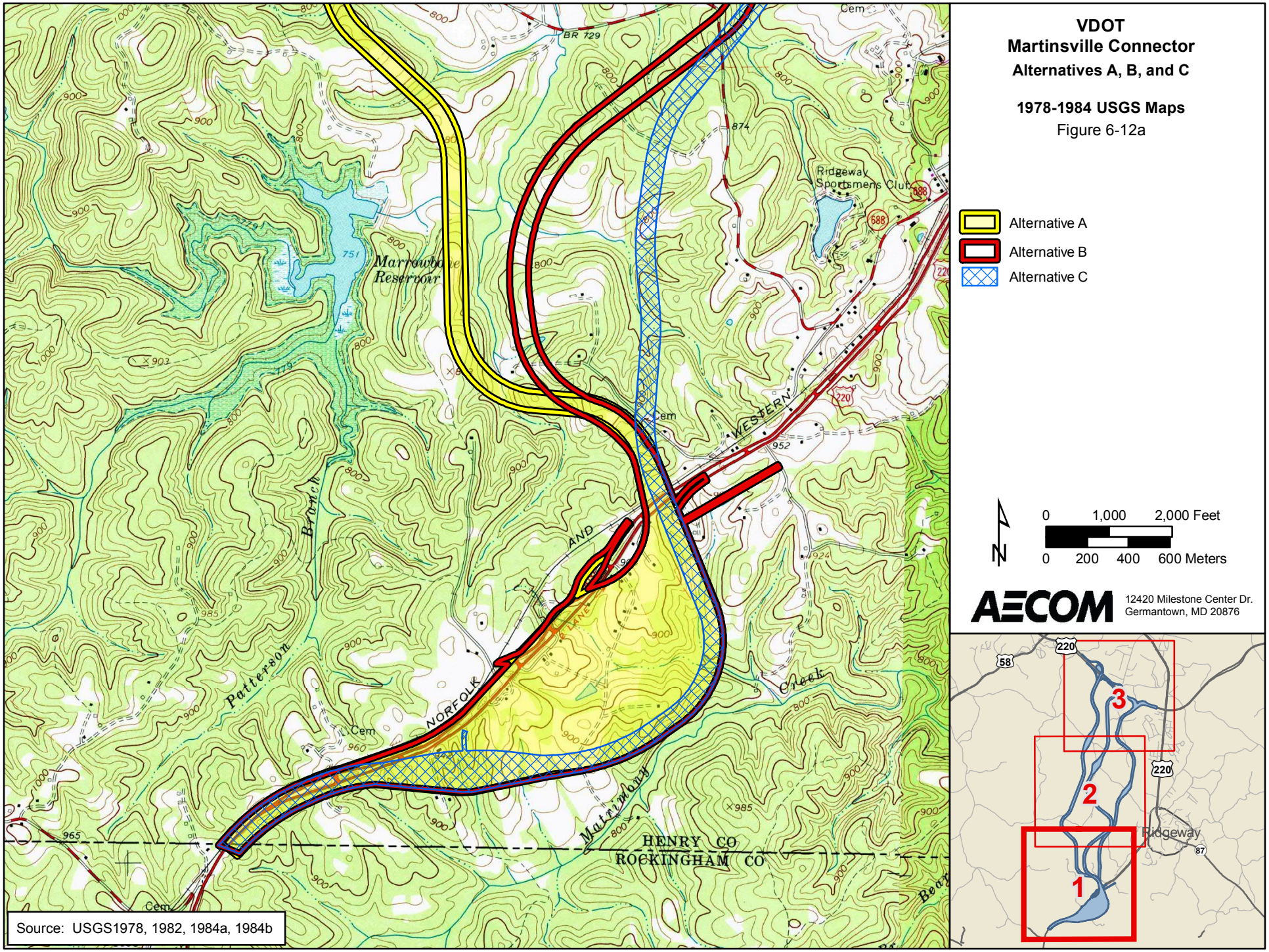
0 1,000 2,000 Feet
0 200 400 600 Meters

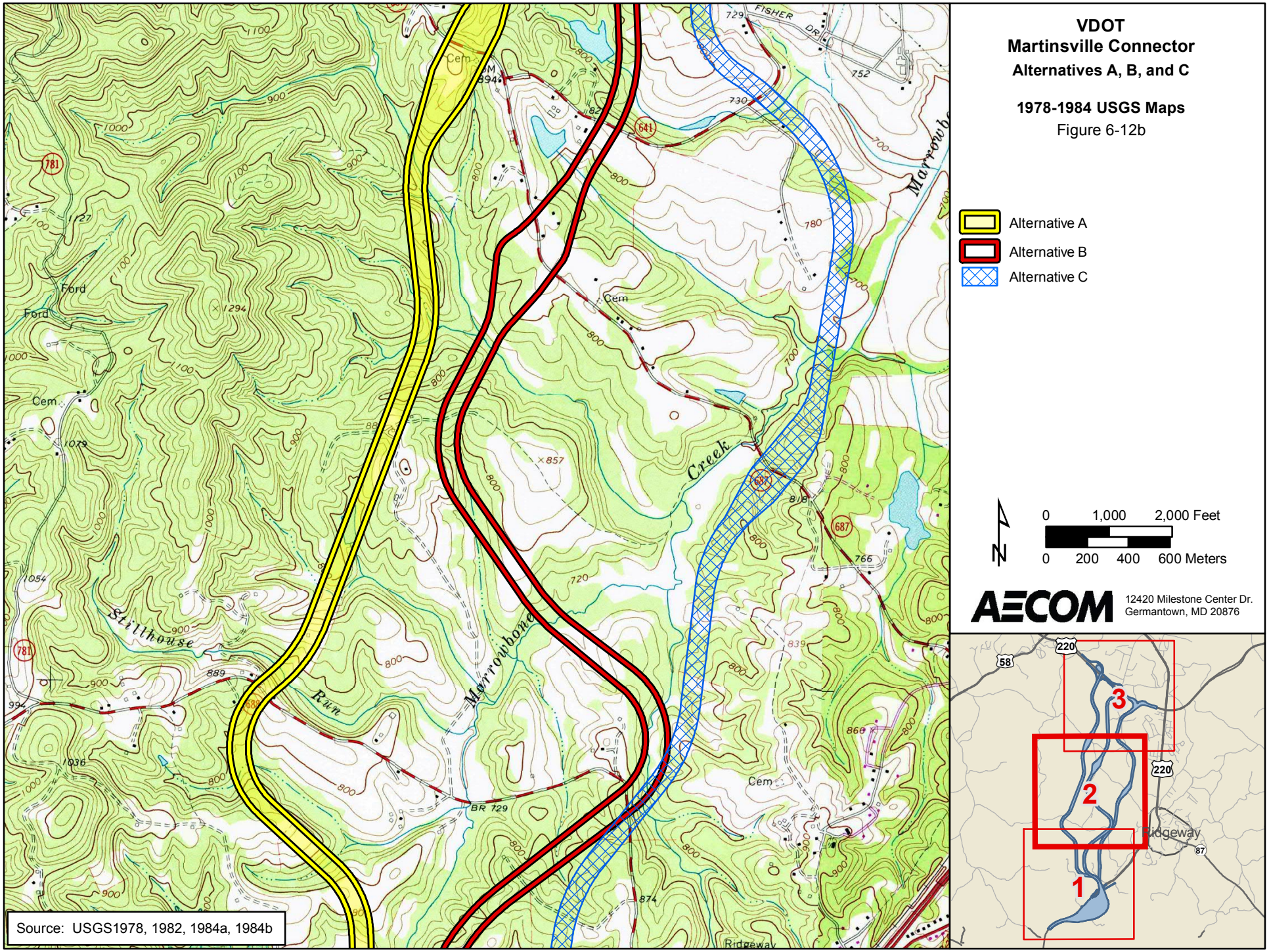
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

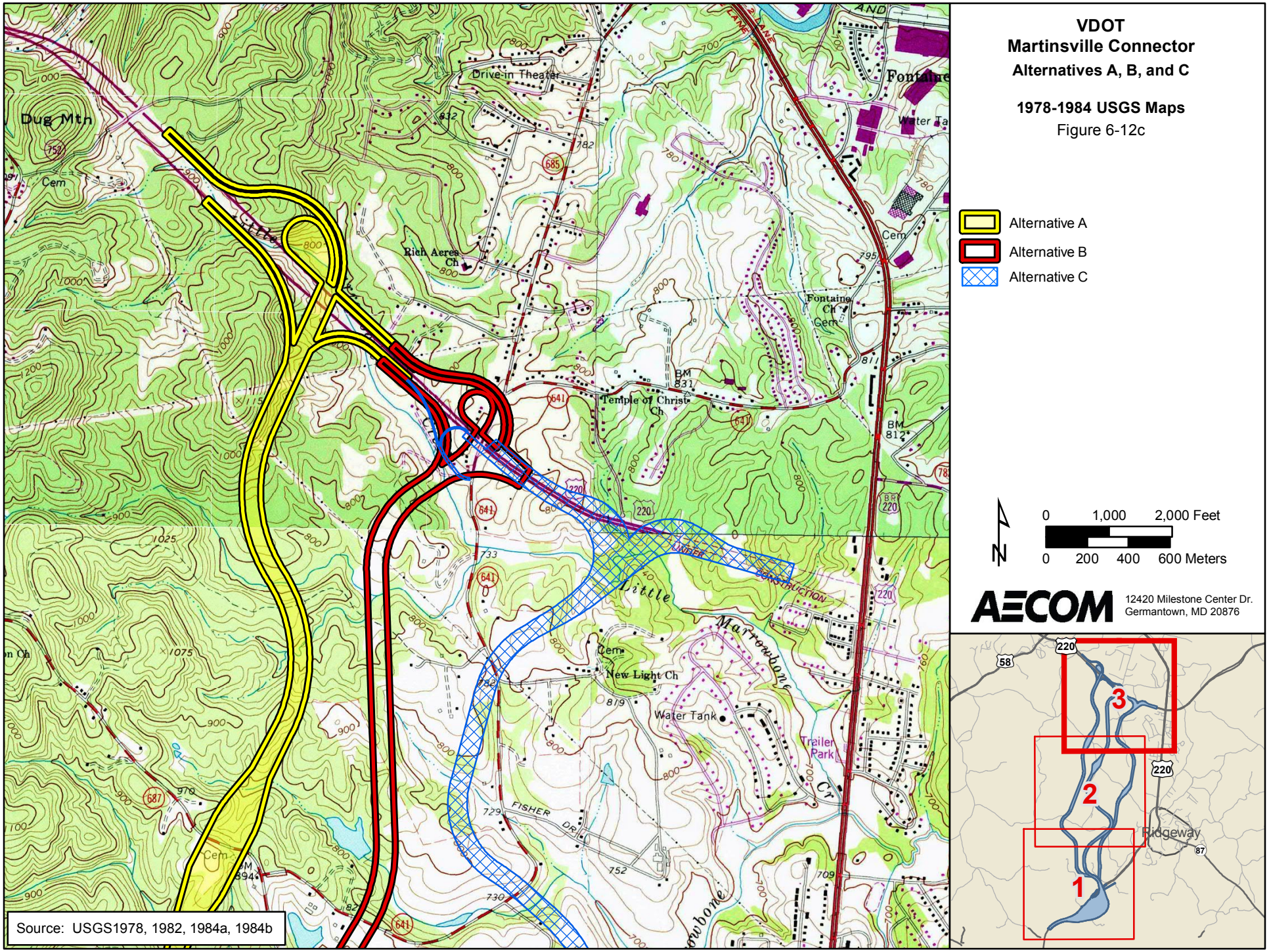


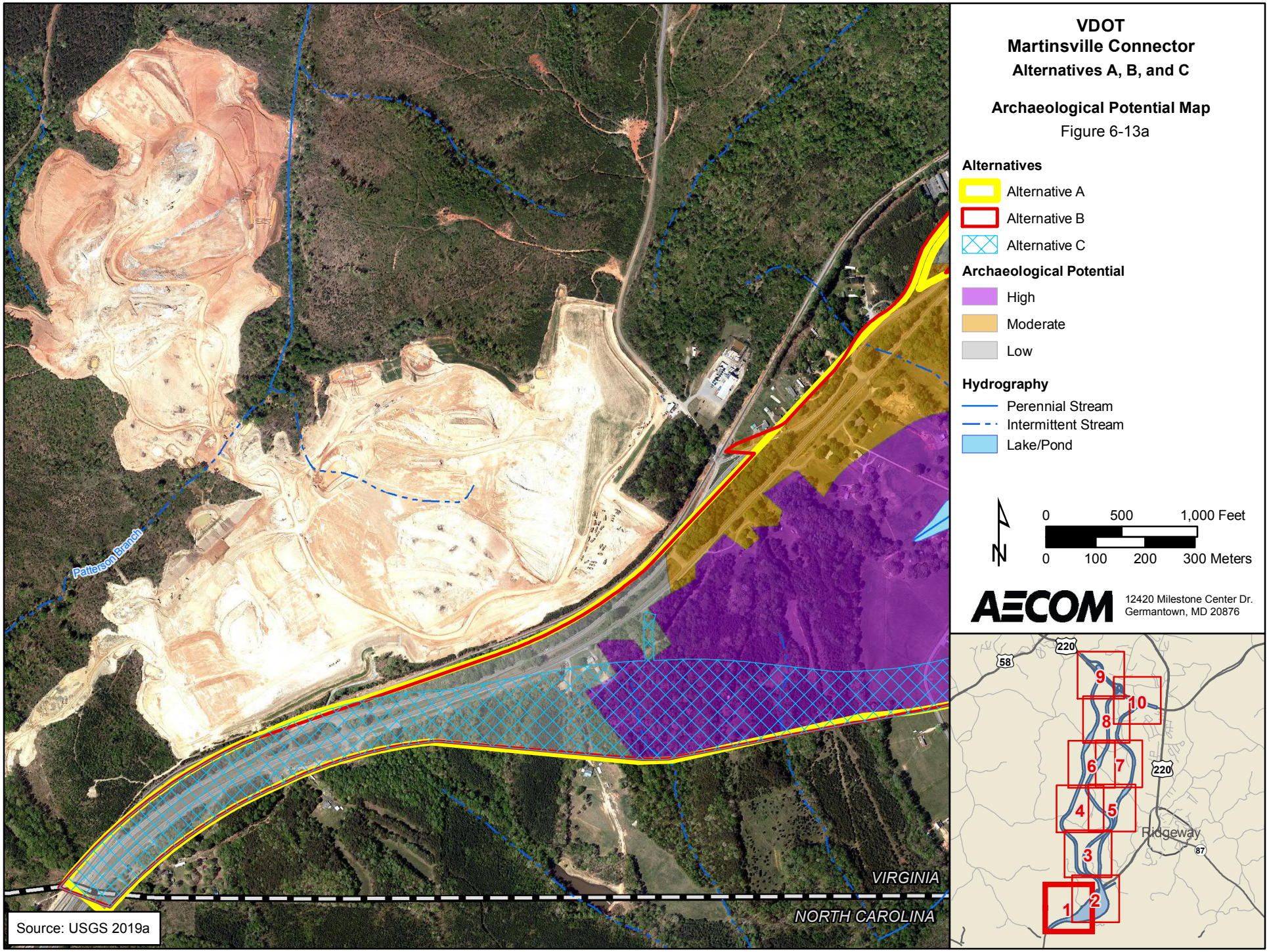

VDOT
Martinsville Connector
Alternatives A, B, and C
1964-1965 USGS Maps
Figure 6-11b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1964a, 1964b, 1964c, 1965
Marrowbone Creek
Marrowbone Run
Stillhouse
Ridgeway
FISHER DR
BR 729
Cem
Ford
1
2
3

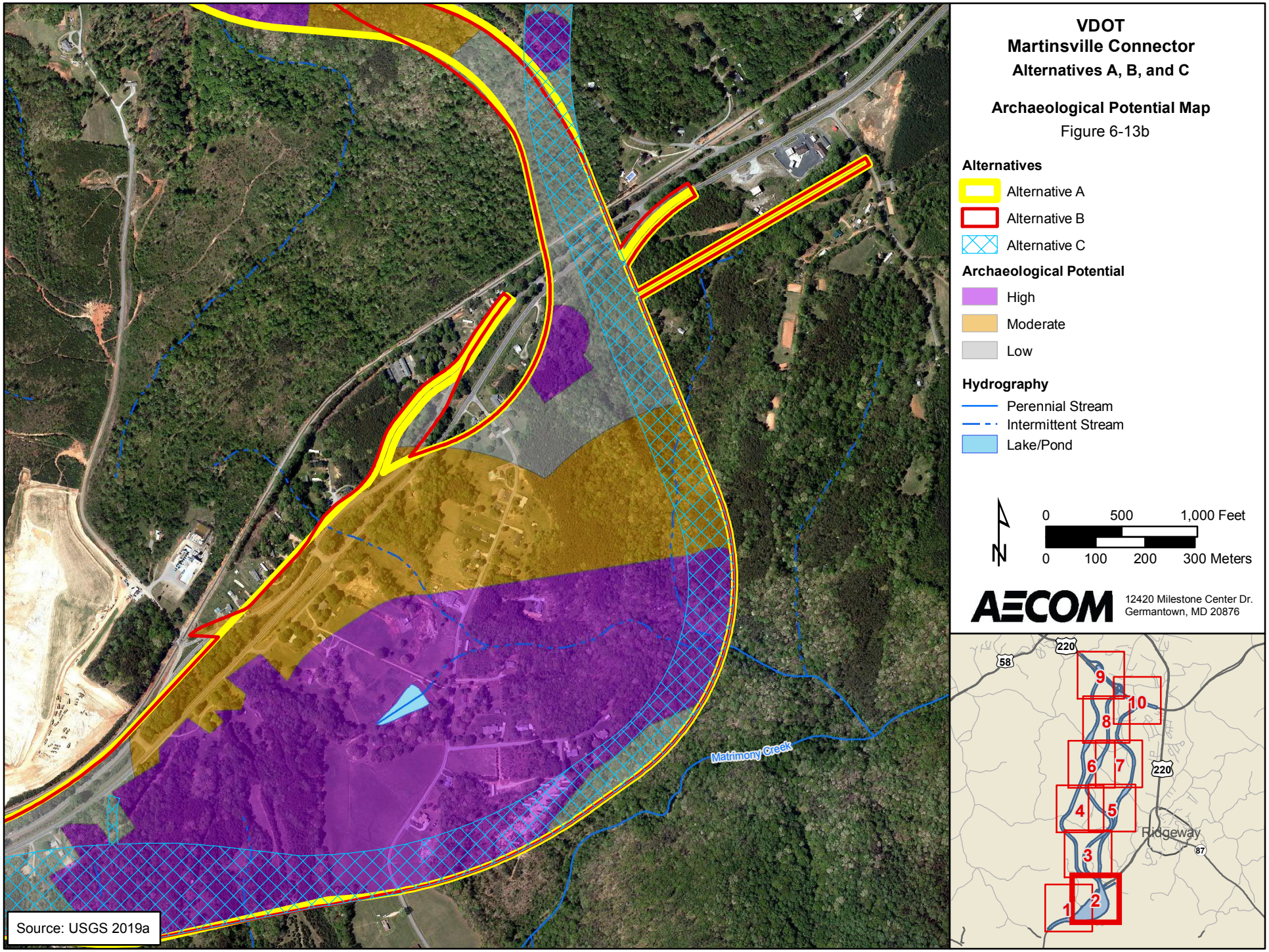

VDOT
Martinsville Connector
Alternatives A, B, and C
1964-1965 USGS Maps
Figure 6-11c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 1964a, 1964b, 1964c, 1965
Drive-in Theater
Rich Acres Ch
Fontaine Ch
Temple of Christ Ch
New Light Ch
Water Tank
Dug Mth
Little Marrowbone Cr
FISHER DR
Ridgeway
1
2
3

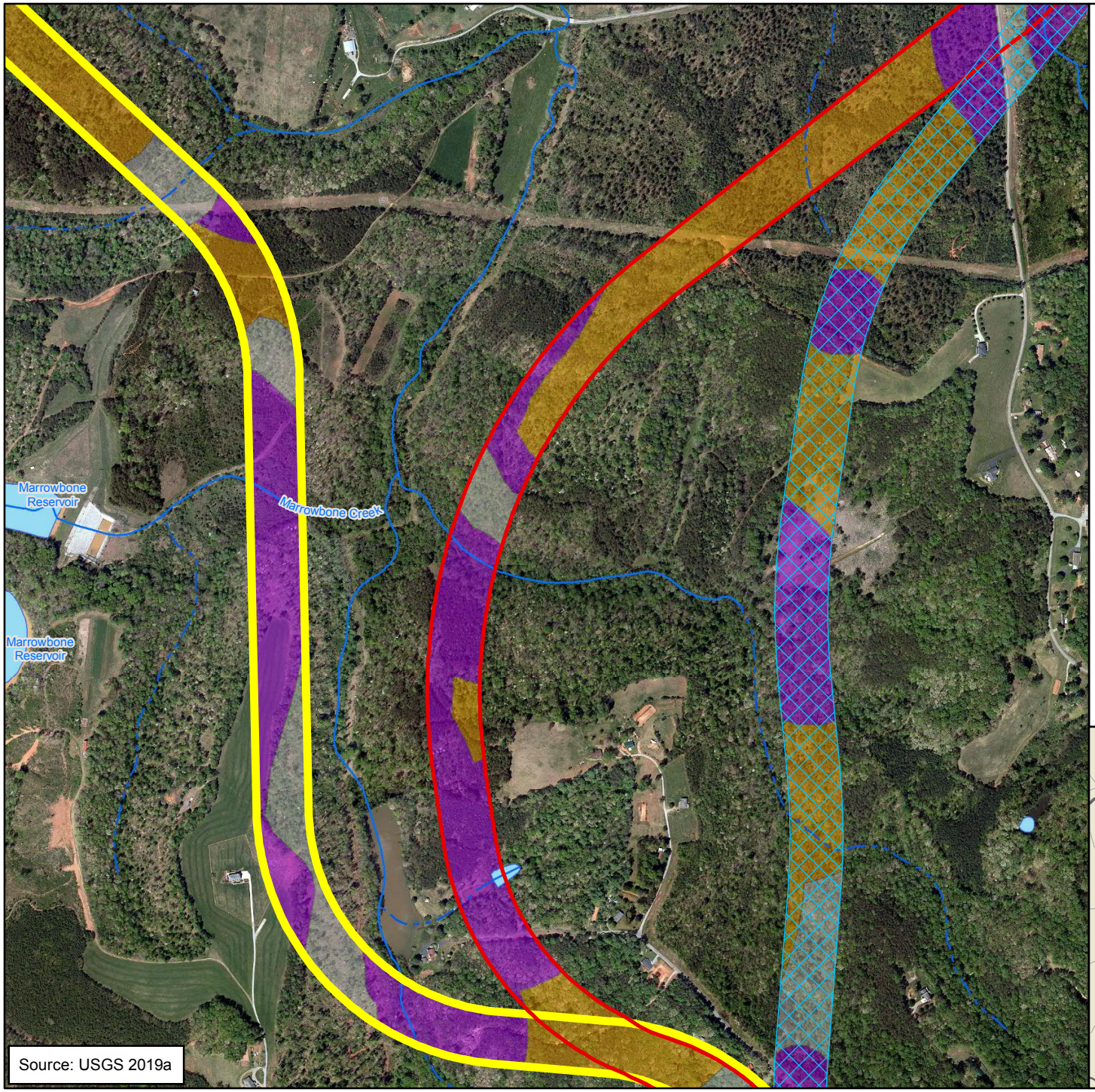

VDOT
Martinsville Connector
Alternatives A, B, and C
1978-1984 USGS Maps
Figure 6-12a
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS1978, 1982, 1984a, 1984b
Marrowbone Reservoir
Ridgeway Sportsmens Club
Patterson Branch
Matrimony Creek
NORFOLK AND WESTERN
HENRY CO
ROCKINGHAM CO
BR 729
Ridgeway
1
2
3


VDOT
Martinsville Connector
Alternatives A, B, and C
1978-1984 USGS Maps
Figure 6-12b
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS1978, 1982, 1984a, 1984b
Stillhouse Run
Marrowbone Creek
Ridgeway
BR 729
Cem
Ford
1
2
3


VDOT
Martinsville Connector
Alternatives A, B, and C
1978-1984 USGS Maps
Figure 6-12c
Alternative A
Alternative B
Alternative C
0 1,000 2,000 Feet
0 200 400 600 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS1978, 1982, 1984a, 1984b
Dug Mtn
Drive-in Theater
Rich Acres Ch
Temple of Christ Ch
Fontaine Ch
Fontaine
New Light Ch
Water Tank
Trailer Park
Little Marrowbone Cr
FISHER DR
UNDER CONSTRUCTION
Ridgeway
1
2
3


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13a
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Patterson Branch
VIRGINIA
NORTH CAROLINA
Source: USGS 2019a
220
58
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13b
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
Matrimony Creek
220
58
9
10
8
6
7
4
5
3
1
2
Ridgeway
87



VDOT
Martinsville Connector
Alternatives A, B, and C

Archaeological Potential Map
Figure 6-13c

Alternatives
- Alternative A
- Alternative B
- Alternative C

Archaeological Potential
- High
- Moderate
- Low

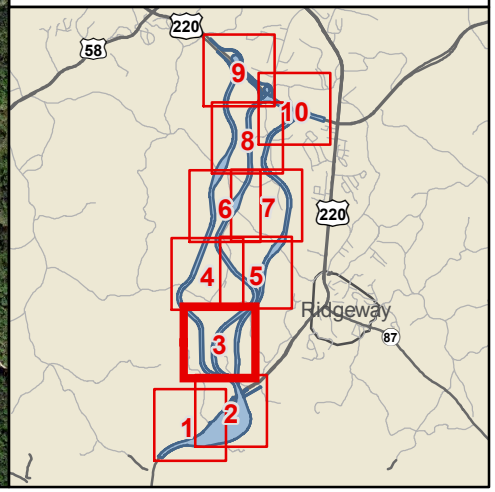
Hydrography
- Perennial Stream
- Intermittent Stream
- Lake/Pond

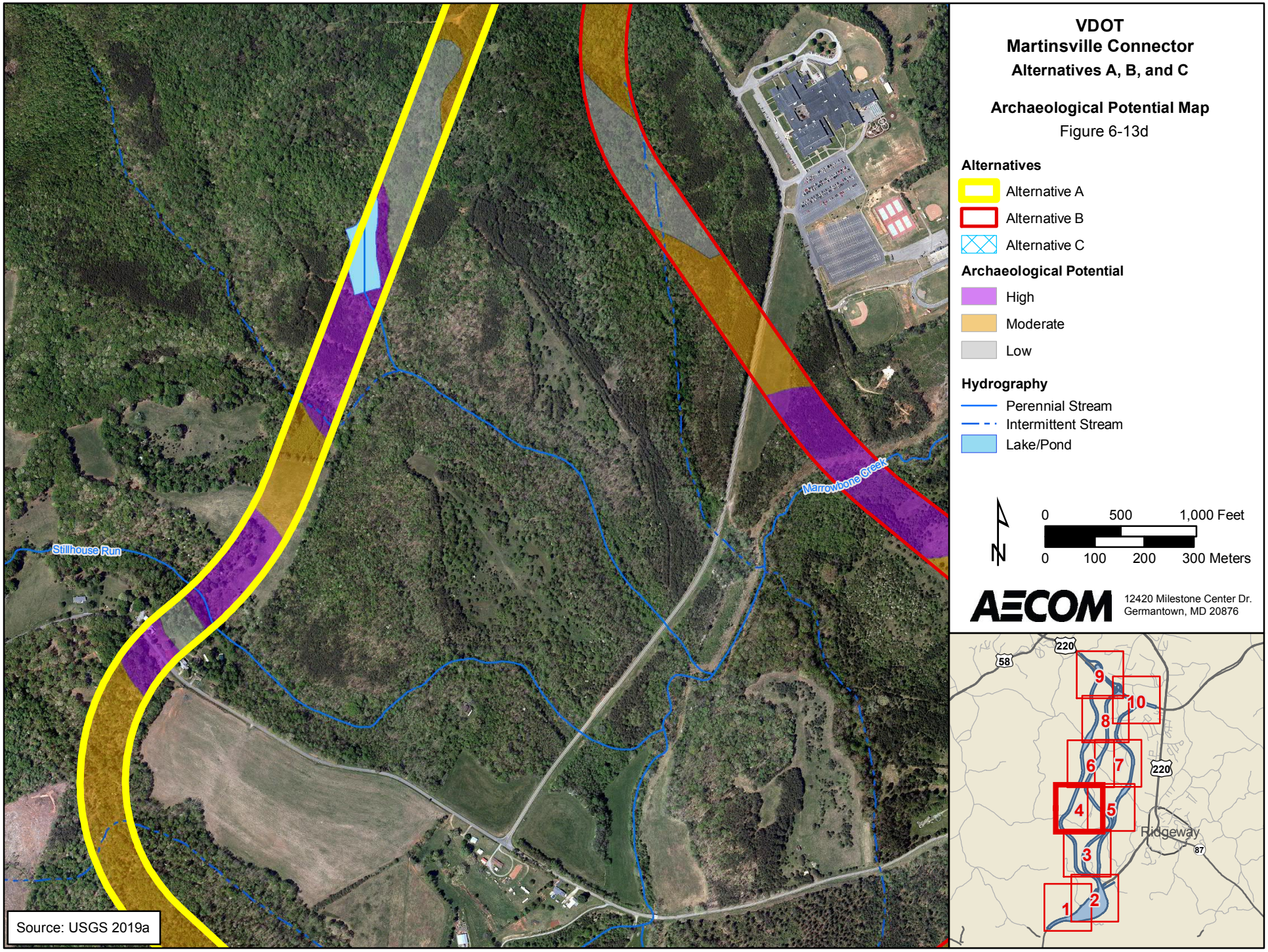
N

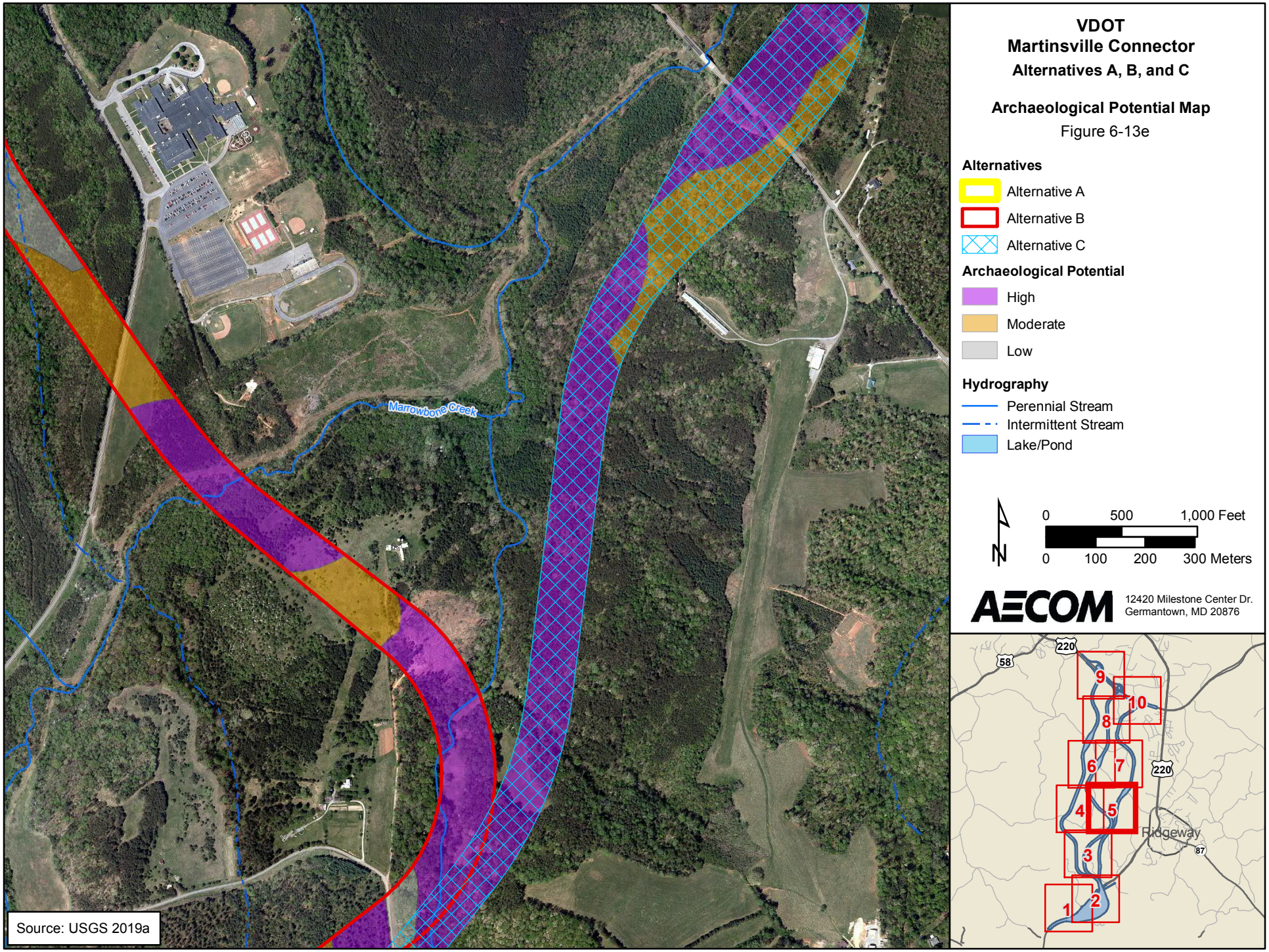
0 500 1,000 Feet

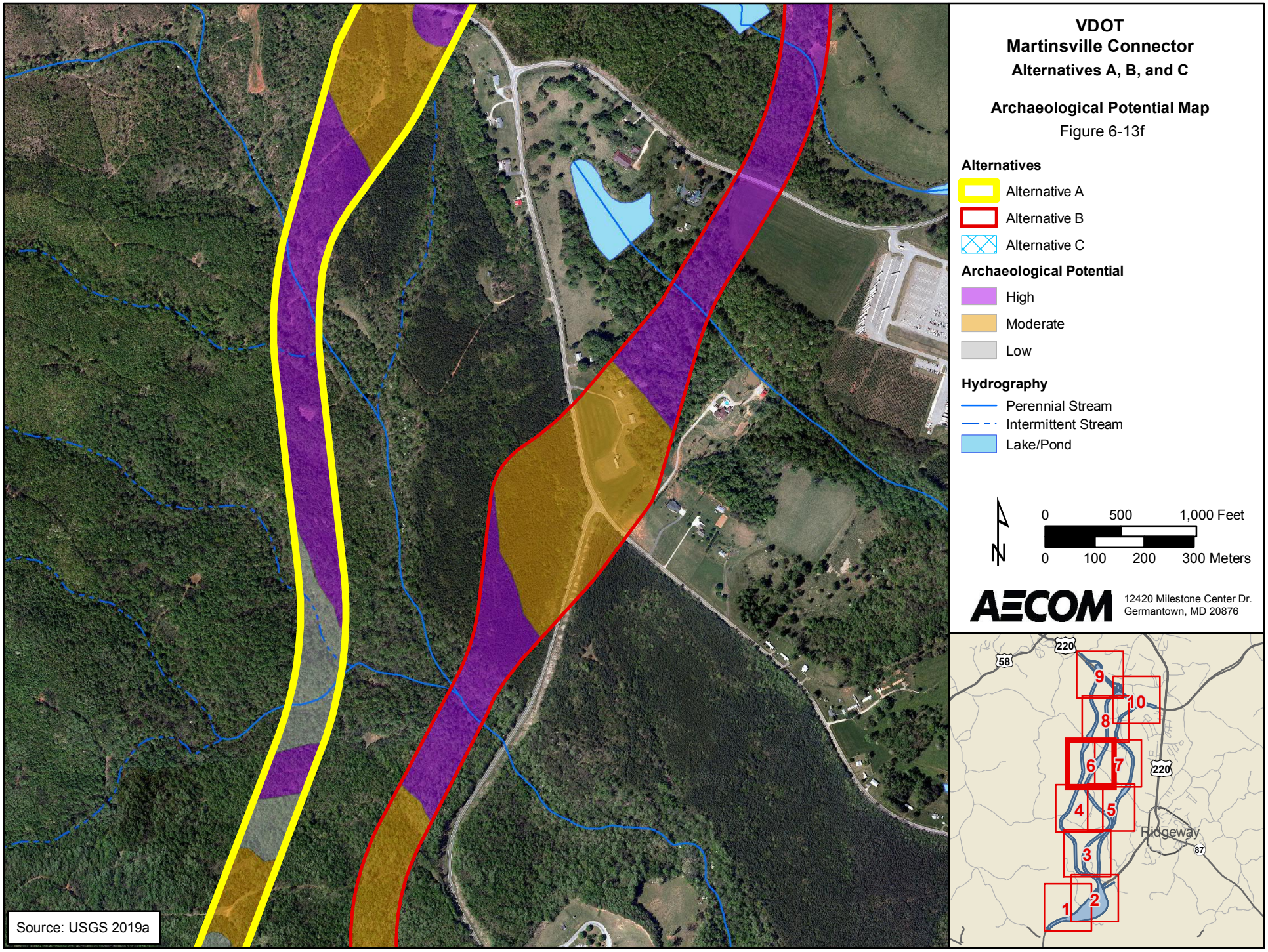
0 100 200 300 Meters

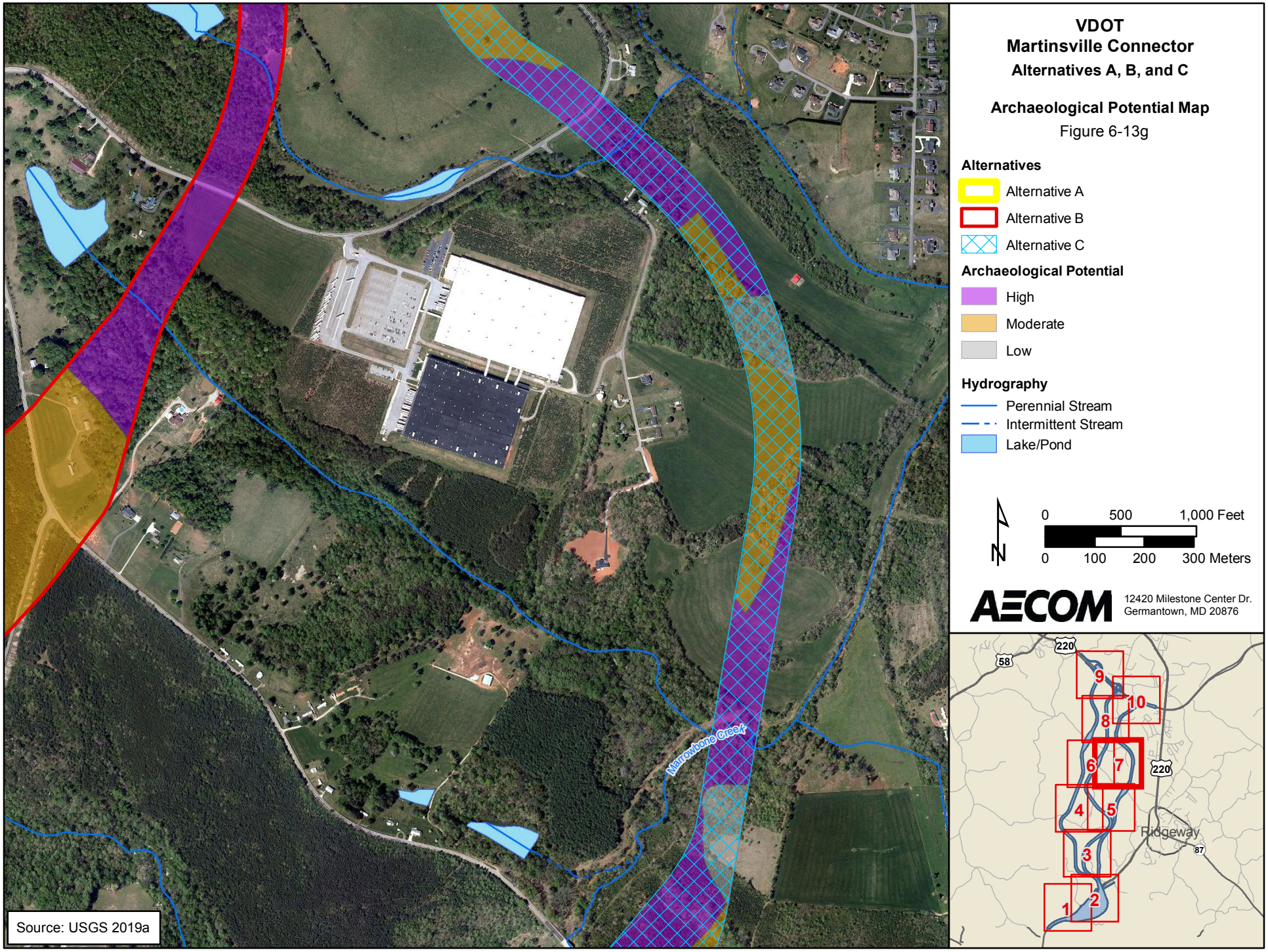
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

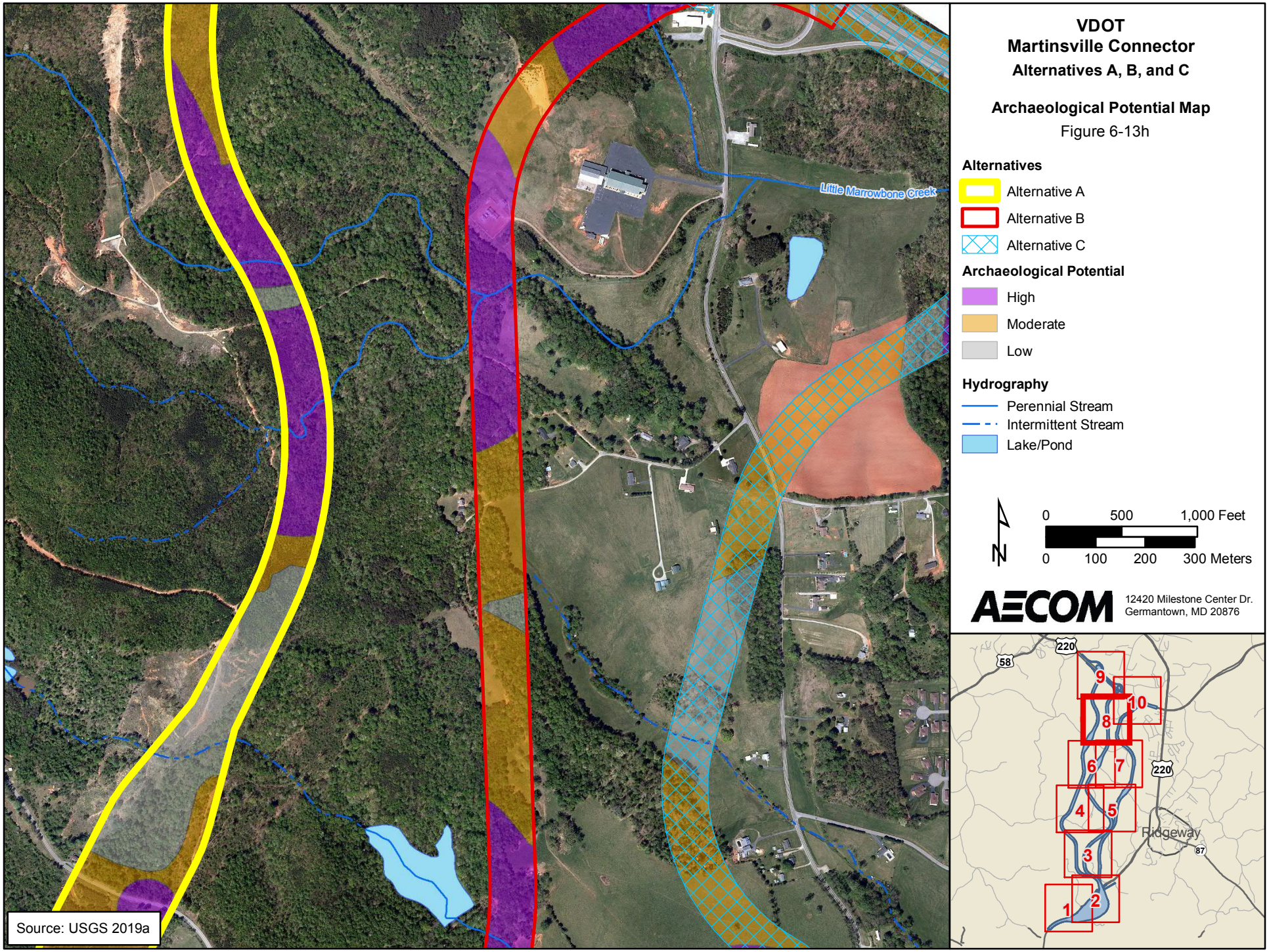


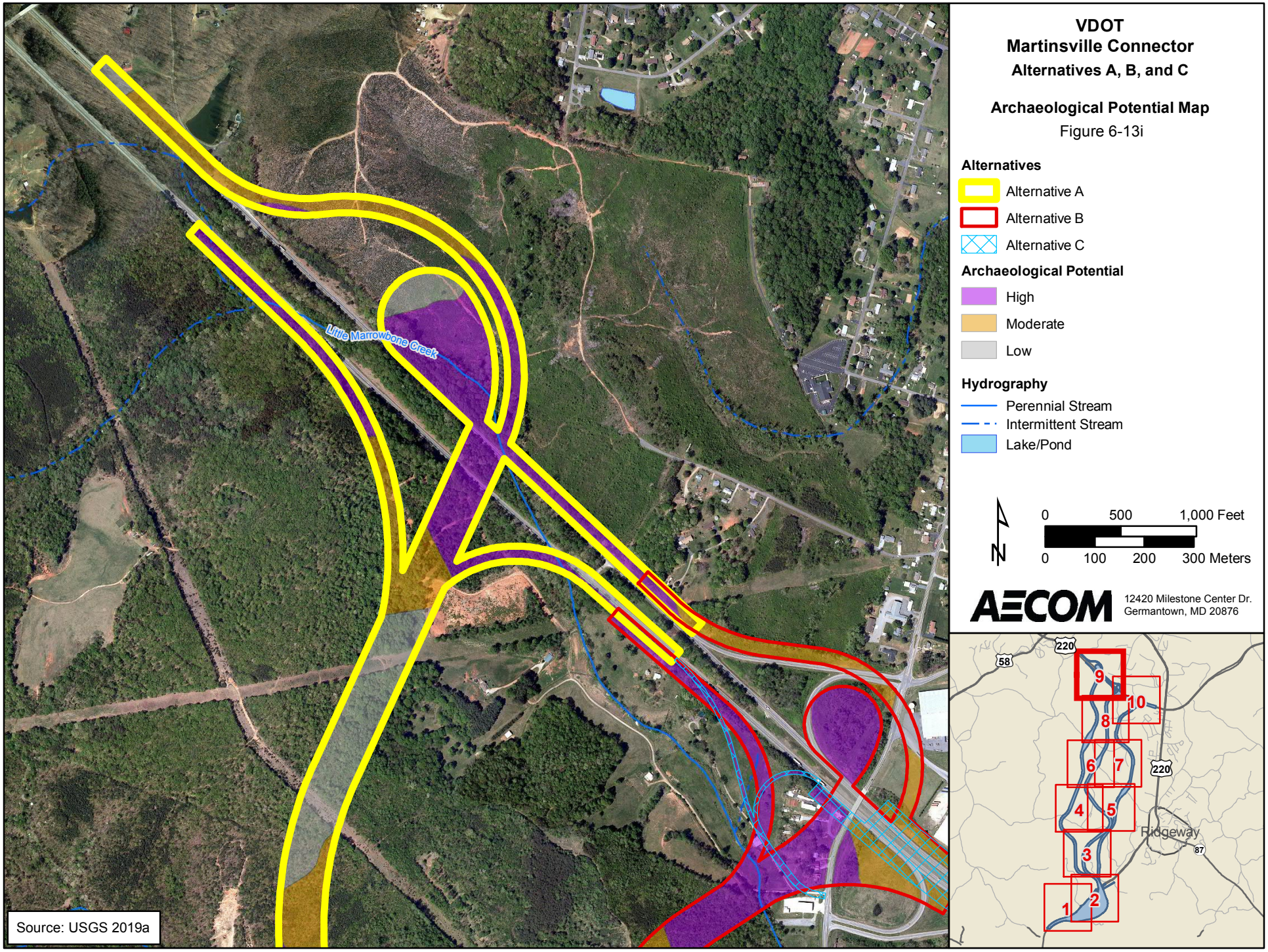

VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13d
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
Marrowbone Creek
Stillhouse Run
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
58
220
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2

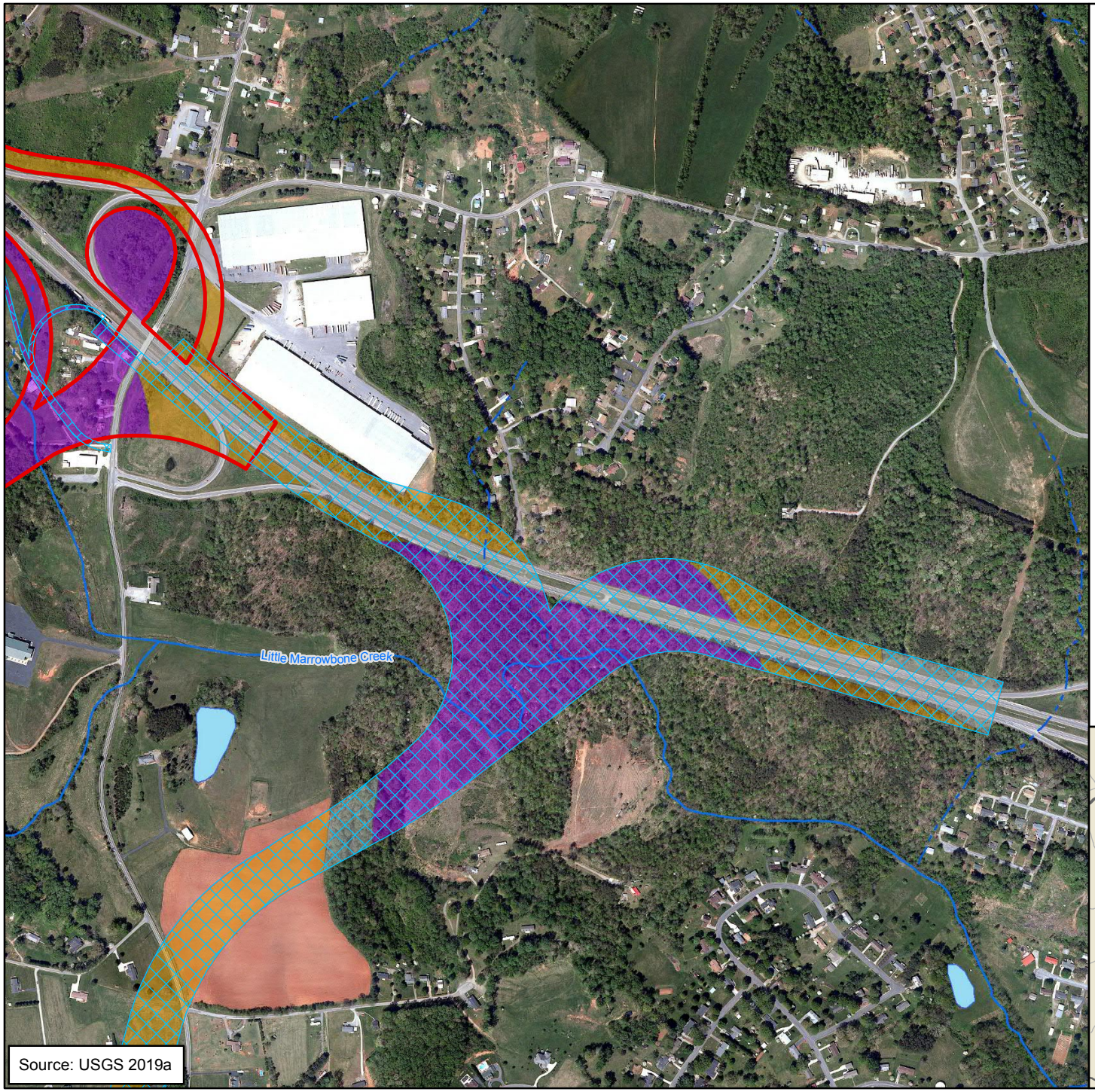

VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13e
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
Marrowbone Creek
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
58
220
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13f
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
220
58
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13g
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Marrowbone Creek
Source: USGS 2019a
220
58
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13h
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
Little Marrowbone Creek
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
220
58
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2


VDOT
Martinsville Connector
Alternatives A, B, and C
Archaeological Potential Map
Figure 6-13i
Alternatives
Alternative A
Alternative B
Alternative C
Archaeological Potential
High
Moderate
Low
Hydrography
Perennial Stream
Intermittent Stream
Lake/Pond
Little Marrowbone Creek
0 500 1,000 Feet
0 100 200 300 Meters
AECOM
12420 Milestone Center Dr.
Germantown, MD 20876
Source: USGS 2019a
220
58
9
10
8
6
7
220
4
5
Ridgeway
87
3
1
2



VDOT
Martinsville Connector
Alternatives A, B, and C

Archaeological Potential Map

Figure 6-13j

Alternatives

- Alternative A
- Alternative B
- Alternative C

Archaeological Potential

- High
- Moderate
- Low

Hydrography

- Perennial Stream
- Intermittent Stream
- Lake/Pond

0 500 1,000 Feet

0 100 200 300 Meters

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876